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A NATURAL HISTORY
OF THE
NESTS AND EGGS OF
BRITISH BIRDS

VOLUME THE FIRST





GRIEFON VULTURE.

A NATURAL HISTORY
OF THE
NESTS AND EGGS
OF
BRITISH BIRDS

BY THE
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FOURTH EDITION

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INTRODUCTION

THE passion for the possession of articles of interest is one which is most widely diffused amongst all races of mankind, from the untutored savage who collects beads and coloured rags, to the most civilised connoisseur of the highest works of art. In many cases the objects of these collections possess little or no value beyond their rarity; they often have neither beauty nor utility to recommend them. The giver of a score or more pounds for an old postage stamp, which merely enables him to state that he has an example that is not in the possession of any other collector, is perhaps an extreme case. The collection of nests, and more particularly of eggs, was formerly to be regarded as of very much the same nature, but now egg-collecting is no longer merely a schoolboy's pastime, and Oology has been elevated to the rank of an intellectual science. It is, if rightly followed, an important branch of natural history, and we are now able to state that the colours of eggs and the forms of nests, like that of the birds that lay the one and build the other, have a fixed and definite object, namely, concealment and the protection of the species. The eggs of birds have to be preserved from their enemies, such as mammals, reptiles, and other birds that

seek to devour them. Not only are the nests and eggs thus concealed, but the sitting bird, in all cases where she hatches in open nests, is dressed in the sombre colour of her surroundings. The hen pheasant is not arrayed in the bright plumage of the male, which would render her open to observation as she sits on her nest. Her eggs accord with the colour of the ground on which they are laid. White eggs that would be conspicuous are usually placed in well-concealed holes, such as are selected by the Kingfisher and the Woodpecker, which themselves are brightly coloured, and would be conspicuous on open nests. When the eggs are white, they are either in concealed nests or, if in open ones, are covered by the bird on leaving so as to be hidden from observation. In many instances where the eggs are placed in inaccessible positions they are brightly coloured. The most remarkable English example of eggs of this type is that of the Guillemot, whose eggs vary from the dullest buff to the most resplendent blue, each bird, probably, always laying an egg of the same definite colour. The difficulty of finding spotted eggs of many shore-nesting birds, amidst the stones and shingle in which they are laid, is well known, and is a remarkable example of the protective influence of colour and marking.

It is usually imagined that the nest of each species of bird is built in precisely the same pattern as the others, owing to an unreasoning and unvarying instinct. This, however, is not the case. The Sparrow, originally a tree-building species, has long since become a parasite on man, and its nests are now usually built in holes in his buildings, or in any contiguous place that will receive them. Many ground-building birds of the Pacific Islands, whose nests were destroyed by the pigs, rats, and other animals that were thoughtlessly

introduced, have acquired the habit of building their nests in trees and in other situations inaccessible to their enemies; and thus have they been preserved from extermination. That birds do not follow a fixed routine in the construction of their nests is evidenced by their using new materials that could not have been accessible to their ancestors. The nest of the domestic Pigeon has been known to be constructed of waste nails in places where these were abundant, and near the officers' camps in India the wires of soda-water bottles have been largely utilised in nest-building. Even birds of prey have acquired the practice of using artificial materials, as rags, for their nests; and as keen an observer as Shakespeare remarks:—

“When the kites build, look out for the lesser linen.”

The study of the wondrous adaptation of nests and eggs to the surroundings amidst which they are placed is one which cannot be regarded in the same light as the collection of book-plates and old postage stamps.

As has been justly said by one of the most eminent of American naturalists, Dr. Elliott Cones, “Ornithology and Oology are twin studies, or rather one includes the other. A collection of nests and eggs is indispensable for any thorough study of birds, and many persons find peculiar pleasure in forming one.” There are, however, two very distinct methods of proceeding. That which is followed by many persons of collecting the eggs, piercing them at both ends and threading them on a string, is scarcely justifiable. It is robbing the birds for no purpose whatever except for mere aggrandisement. The eggs so collected and treated are perfectly worthless. There is a right and a wrong way

of doing everything. The proper method of procedure has been very admirably laid down by Professor Alfred Newton, Dr. Elliott Cones, and many other authors.

In preparing eggs for a cabinet, only one hole should be made. This should be done in the centre of the side showing the characteristic markings in the least conspicuous manner. The hole should not be made with a needle, which if thrust in forcibly is very liable to crack the egg, but with a pointed conical drill, rather blunter than an ordinary lead pencil is cut. These drills, two of which of different sizes are shown in the engraving, may be obtained at any bird-stuffer's or naturalist's, but a very good substitute may be made by taking straight pieces of stout iron wire of different thicknesses, a few inches in length, and filing them to a point so as to resemble a cut pencil. The point, however, should not be conical but many-sided, as the rough edges are required to wear away the substance of the shell. The points of these drills, after being filed out of soft iron wire, may be heated over a lamp just short of redness and then instantaneously plunged into cold water, which will harden them sufficiently for all practical purposes.

The egg to be blown should be held gently but steadily in the fingers, the point of the drill applied perpendicularly to the surface—some persons make a single slight prick with a needle in the first instance; the drill should then be twirled between the finger and thumb with but slight pressure, when it files away the shell, boring a smooth-edged circular hole. This done, the point of a small blowpipe, which can be purchased for a few pence at any naturalist's or tool-shop, should be inserted and the egg blown into, the hole being held downwards, when the contents are expelled by the air. In order to cleanse thoroughly the interior of

the egg some water should be taken into the mouth, and this should be blown into the shell. This operation is advan-



Egg Drills - Full size



Wire Drills

Blowpipe - Full size

IMPLEMENTS FOR EGG-BLOWING

tageously performed over a basin of water, as if the egg slips

out of the fingers it falls into the water and does not break, and the contents, as they fall, are received without inconvenience. It is well for the learner to begin on some valueless eggs; he may commence on those of ordinary hens or ducks, and the contents may be utilised for omelets.

Those eggs that have been incubated, in which the embryo is more or less completely developed, necessarily offer considerable difficulty; they cannot be blown, but the embryo must be extracted through a larger hole. This, if attempted to be made by the drill, often results in the cracking of the shell, and consequently the usual plan is to pierce the shell with a fine needle in a circular series of holes almost touching, and this enables a circular piece of shell to be taken out. If the embryo or young bird is well developed, it must be cut to pieces with a pair of very slender scissors introduced through the hole, and got out with a pair of forceps piecemeal. An egg that is nearly hatching has the structure of the shell so far altered that it becomes much more brittle than when first laid, and hence there is some difficulty in extracting the embryo without the shell being destroyed. Hence such eggs are often strengthened by gumming paper on them so as to fortify them before the hole is made for the extraction of the embryo, and when this is done the whole egg is soaked in water and the gummed paper removed.

As it is impossible to attach labels to eggs, each one should be marked with a number and date, thus, 36—3/11/95, signifying that the index number of the egg is 36, and that it was collected on the 11th of March 1895, so that it may be readily identified. This mark should be on the side on which the hole is made, so as not to be conspicuous. Eggs when thus blown should be placed in pasteboard trays in

shallow drawers, unless, indeed, they can be still more advantageously placed in the nests themselves, which it is most important to collect and preserve, for, as Mr. Ingersoll says in his plea for the "Study of Nests":—

"As a scientific study there is far more advantage to be obtained from a series of nests than from a series of eggs. The nest is something with which the will and energies of the bird are concerned. It expresses the character of the workman, is to a certain extent an index of its rank among birds—for in general those of the highest organisation are the best architects—and gives us a glimpse of the bird's mind and power to understand and adapt itself to changed conditions of life. The nest is always more or less the result of conscious planning and intelligent work, even though it does follow a hereditary habit in its style; while the egg is an automatic production varying, if at all, only as the whole organisation of the bird undergoes change. Don't neglect the nests then. In them more than anywhere else lies the key to the mind and thoughts of a bird, the spirit which inhabits that beautiful frame and bubbles out of that golden mouth. And is it not this inner life, this human significance in bird nature, this soul of ornithology, that we are all aiming to discover?"

Much might be said regarding the wonderful structure of the egg and the marvellous changes that the contents undergo during incubation, but these considerations belong rather to the domain of physiology than of ornithology. One point however may be alluded to, the difference in the character of the shell of the egg when first laid and after incubation. The marvellous strength of the shell, when its slight structure is considered, is rarely fully appreciated. If an ordinary well-formed hen's egg is taken, and

the two ends placed one in the palm of each hand, the fingers may be closed and any amount of pressure brought to bear upon it, and it cannot be broken, provided it is fairly pressed from end to end. Again, eggs may be thrown about in a grass field like balls without breaking, unless one of them happens to fall upon the sharp edge of a stone. Many amusing illustrations of this fact have occurred to the writer. On one occasion he was accused of relating a falsehood by stating that eggs from a wild duck's nest had been thrown by himself from a boat on to the bank, and that they had been reclaimed without being injured. The accusation was disproved by a large number of hen's eggs being thrown out of the College window on to the lawn, the accuser undertaking to pay for those not broken, which involved the purchase of the whole basket. It may be asked, if the shell is so strong, how is it possible that the delicate chick in the interior can emerge when arrived at maturity? This question is usually ignorantly and erroneously answered by its being stated that the hen chips the shell to allow the escape of the chicken. No assistance of the kind is required, if it were it is evident that chickens would never emerge in an incubator. Shortly before the period of hatching, the regular structure of the shell, which is built up with extraordinary perfection, breaks down, and the shell becomes what may be called disintegrated or almost rotten, so soft as to enable the enclosed bird to cut its way through the shell by repeated blows with the little sharp-pointed, hard egg-tooth which is on the tip of the beak, and which falls off after the bird has been hatched a few hours. The existence of this contrivance is not generally recognised, and the writer had much pleasure in furnishing Sir William Flower with specimens illustrating

60

its existence and use, for exhibition in the Central Hall of the British Museum at South Kensington, where they are now displayed.

Volumes might be written on the wonderful changes that take place during the development of the chicken within the egg during incubation. The wonderful and perfect adaptation of all the various parts and structures to the requirements of the young birds may serve to remind the observer of the words of the old poet Leigh Hunt, that "there is but a slight difference between the right study of ornithology and orni-theology."

W. B. TEGETMEIER.

CONTENTS AND PLATES

VOLUME THE FIRST

	PAGE
GRIFFON VULTURE	I
EGYPTIAN VULTURE	3
ERNE (<i>The White-Tailed Eagle—Sea Eagle</i>)	5
GOLDEN EAGLE	7
SPOTTED EAGLE	10
OSPREY (<i>Fishing Hawk</i>)	11
BUZZARD	13
ROUGH-LEGGED BUZZARD	15
HONEY BUZZARD	17
KITE (<i>Glead—Puttock—Fork-Tailed Kite</i>)	19
SWALLOW-TAILED KITE	21
BLACK KITE	22
JER-FALCON	23
PEREGRINE (<i>Peregrine-Falcon</i>)	25
HOBBY	27
ORANGE-LEGGED HOBBY (<i>Red-Footed Falcon</i>)	29
MERLIN	30
KESTREL (<i>Windhover—Stonegall—Stannel Hawk</i>)	32
LESSER KESTREL	35
GOSHAWK	36
SPARROW-HAWK	38
MARSH HARRIER (<i>Moor Harrier—Puttock—Moor Buzzard—Duck Hawk</i>)	40
HEN HARRIER	42
MONTAGU'S HARRIER	43
SHORT-EARED OWL (<i>Woodcock Owl—Short-Horned Owl—Hawk Owl—Mouse Hawk</i>)	44

	PAGE
LONG-EARED OWL (<i>Long-Horned Owl</i>)	45
EAGLE OWL (<i>Great Owl—Great Horned Owl—Great Eared Owl</i>) .	46
SCOPS-EARED OWL (<i>Little Horned Owl</i>)	47
SNOWY OWL	48
TAWNY OWL (<i>Brown Owl</i>)	49
WHITE OWL (<i>Barn Owl—Screech Owl—Howlet—Madge Owl— Church Owl—Hissing Owl</i>)	51
MOTTLED OWL	53
LITTLE OWL (<i>Little Night Owl</i>)	54
TENGMALM'S OWL (<i>Tengmalm's Night Owl</i>)	55
HAWK OWL (<i>Canada Owl</i>)	56
GREY SHRIKE (<i>Great Grey Shrike—Great Shrike—Ash-Coloured Shrike—Greater Butcher Bird—Shrike—Shreek—Cinereous Shrike—Mattagess</i>)	57
LESSER GREY SHRIKE	59
RED-BACKED SHRIKE (<i>Cheeter—Flusher—Lesser Butcher Bird— Murdering Pie—Jack Baker—Whiskey John—Nine Killer</i>) .	60
WOODCHAT (<i>Wood Shrike—Woodchat Shrike</i>)	62
GREAT TITMOUSE (<i>Oxeye—Black-Cap—Great Tit—Sit-Ye-Down— Great Black-Headed Tomtit—Tom Collier</i>)	64
COLE TITMOUSE (<i>Cole Titmouse—Colemouse</i>)	67
CRESTED TITMOUSE (<i>Crested Tit</i>)	68
BLUE TITMOUSE (<i>Blue-Cap—Blue Tit—Blue-Bonnet—Nun—Tomtit —Blue Mope—Billy-Biter—Hickwall</i>)	70
MARSH TITMOUSE (<i>Marsh Tit—Black-Cap—Smaller Oxeye—Willow- Biter—Joe Bent</i>)	75
LONG-TAILED TITMOUSE (<i>Long-Tailed Tit—Mum Ruffin—Bottle Tit —Long-Tailed Pie—Long Tom—Bottle Tom—Poke Pudding— Long Pod—Huck-Muck—Long-Tailed Mag—Mufflin—Long- Tailed Mufflin</i>)	77
BEARDED TITMOUSE (<i>Bearded Tit—Pinnock—Bearded Pinnock— Reed Pheasant</i>)	81
PIED FLYCATCHER	83
RED-BREASTED FLYCATCHER	85
SPOTTED FLYCATCHER (<i>Beam Bird—Rafter—Cob-Web Bird—Bee Bird—Cherry Chopper—Cherry Sucker—Chanchider</i>) . .	86
ROLLER (<i>Garrulous Roller</i>)	88

CONTENTS AND PLATES

xvii

	PAGE
KINGFISHER (<i>Kingsfisher</i>)	89
BELTED KINGFISHER (<i>Great Belted Kingfisher</i>)	91
BEE-EATER (<i>Yellow-Throated Bee-Eater—Common Bee-Eater—Gnat-Snapper</i>)	92
HOOPOE (<i>Common Hoopoe</i>)	93
CHOUGH (<i>Red-Legged Crow—Cornish Chough—Cornish Daw—Cornwall Kae—Killigrew—Market-Jew Crow—Chauk Daw—Hermit Crow—Red-Legged Jackdaw—Cliff Daw—Gesner's Wood Crow</i>)	94
RAVEN (<i>Corbie—Corbie-Crow—Great Corbie Crow</i>)	95
CROW (<i>Carrion Crow—Gor Crow—Gore Crow—Black Neb-Flesh Crow</i>)	97
HOODED CROW (<i>Royston Crow—Grey Crow—Grey-Backed Crow—Scare-Crow—Hoody—Dun Crow—Bunting Crow</i>)	99
ROOK	101
JACKDAW (<i>Daw—Kae</i>)	103
MAGPIE (<i>Common Magpie—Pianet—Madge</i>)	105
NUTCRACKER	107
JAY	108
WAXWING (<i>Bohemian Waxwing—Bohemian Chatterer—European Chatterer—Waxen Chatterer</i>)	110
NUTHATCH (<i>Nutjobber—Woodcracker</i>)	112
WRYNECK (<i>Cuckoo's Mate—Cuckoo's Maid—Cuckoo's Messenger—Rinding-Bird—Snake-Bird—Tongue-Bird—Long-Tongue—Emmet-Hunter</i>)	113
CREEPER (<i>Tree Creeper—Common Creeper—Tree Climber</i>)	114
WALL CREEPER	115
BLACK WOODPECKER (<i>Great Black Woodpecker</i>)	116
GREEN WOODPECKER (<i>Ecle—Large Green Woodpecker—Woodspite—High Hoe—Hew-Hole—Pick-a-Tree—Popinjay—Rain-Bird—Rain-Fowl—Whittle—Awl-Bird—Yappingal—Yaffle—Yaffer—Nick-a-Pecker</i>)	117
GREAT SPOTTED WOODPECKER (<i>Whitwall—Witwall—Woodwall—Woodnacker—Woodpie—French Pie—Pied Woodpecker—Greater Spotted Woodpecker—French Woodpecker—Great Black and White Woodpecker</i>)	119
LESSER SPOTTED WOODPECKER (<i>Least Spotted Woodpecker—Barred Woodpecker—Little Black and White Woodpecker—Hickwall—Crank-Bird</i>)	120

	PAGE
HAIRY WOODPECKER	121
THREE-TOED WOODPECKER (<i>Northern Three-Toed Woodpecker</i>) .	122
YELLOW-BILLED CUCKOO (<i>American Yellow-Billed Cuckoo—Virginian Cuckoo—Carolina Cuckoo—Cow-Bird—Rain-Crow</i>)	123
CUCKOO (<i>Common Cuckoo—Gowk</i>)	125
GREAT SPOTTED CUCKOO	127
RED-NECKED NIGHTJAR (<i>Russet-Necked Nightjar</i>)	128
NIGHTJAR (<i>Goat-Sucker—Dor-Hawk—Night-Hawk—Fern-Owl—Wheel-Bird—Churn-Owl—Jar-Owl—Puckeridge</i>)	129
SWIFT (<i>Common Swift—Black Martin—Screech Martin—Screecher—Screamer—Deviling</i>)	131
ALPINE SWIFT (<i>White-Bellied Swift</i>)	132
SWALLOW (<i>Chimney Swallow—Red-Fronted Swallow—Common Swallow</i>)	133
PURPLE MARTIN (<i>American Purple Martin</i>)	135
MARTIN (<i>House Martin—Martin—Window Swallow</i>)	136
SAND MARTIN (<i>Bank Martin</i>)	138
PIED WAGTAIL (<i>Water Wagtail—Winter Wagtail—Black and White Wagtail—Peggy Wash-Dish—Dish-Washer</i>)	139
WHITE WAGTAIL (<i>Grey-and-White Wagtail</i>)	141
GREY WAGTAIL (<i>Winter Wagtail—Yellow Wagtail</i>)	143
GREY-HEADED WAGTAIL (<i>Blue-Headed Wagtail—Yellow Wagtail—Blue-Headed Yellow Wagtail</i>)	145
YELLOW WAGTAIL (<i>Ray's Wagtail</i>)	146
RICHARD'S PIPIT	147
TAWNY PIPIT (<i>Tawny Lark</i>)	148
WATER PIPIT (<i>Alpine Pipit</i>)	149
MEADOW PIPIT (<i>Titlark—Pipit—Titling—Meadow Titling—Moss Creeper—Ling Bird—Meadow Lark</i>)	150
RED-THROATED PIPIT	152
TREE PIPIT (<i>Pipit Lark—Field Titling—Field Lark—Lesser Field Lark—Tree Lark—Grasshopper Lark—Lesser Crested Lark—Meadow Lark—Short-Heeled Field Lark</i>)	153
ROCK PIPIT (<i>Rock Lark—Sea Lark—Field Lark—Dusky Lark—Shore Lark—Shore Pipit—Sea Titling</i>)	155
SHORE LARK	157
WHITE-WINGED LARK	159

CONTENTS AND PLATES

xix

	PAGE
SHORT-TOED LARK	160
WOOD LARK	161
SKY LARK (<i>Lavrock—Field Lark</i>)	162
CRESTED LARK	164
BLACK-HEADED BUNTING	165
SNOW BUNTING (<i>Snow Flake—Snow Fleck—Snow Fowl—Tawny Bunting—Brambling—Greater Brambling—Great Pied Moun- tain Finch—Lesser Mountain Finch</i>).	166
LAPLAND BUNTING (<i>Lapland Lark Bunting—Lapland Finch</i>)	168
BUNTING (<i>Common Bunting—Corn Bunting—Buntinglark</i>)	169
REED BUNTING (<i>Black-Headed Bunting—Reed Sparrow—Chink— Black Bonnet</i>)	171
RUSTIC BUNTING	173
LITTLE BUNTING	174
YELLOW HAMMER (<i>Yellow Bunting—Yellow Yowley—Yellow Yeld- ring—Yellow Yoldring—Yellow Yite—Yeldrock—Yolkring— Yoit—Skite—Goldie</i>)	175
CIRL BUNTING (<i>French Yellow-Hammer—Black-Throated Yellow- Hammer</i>)	177
ORTOLAN (<i>Ortolan Bunting</i>)	178

NESTS AND EGGS

OF

BRITISH BIRDS

GRIFFON VULTURE

PLATE I.

<i>Gyps fulvus</i> ,	.	.	.	.	.	.	.	GRAY.
<i>Vultur fulvus</i> ,	.	.	.	.	.	.	.	GOULD.

A SINGLE specimen only of the Griffon Vulture has been captured in the British Isles, its breeding range being the countries bordering on the Mediterranean and eastward into Persia, and even beyond.

The nests, which are placed on ledges or in cavities of the mountains, and seldom to be reached without a rope, are large and coarse, being formed of boughs, tufts of grass, or any available material.

The egg, which is usually single, although two are sometimes found in one nest, is of a dull white colour, sometimes marked more or less with a few very pale red, or, rather, rust-coloured blots. "A strong and musky smell," writes Mr. Howard Saunders, "pervades alike the eggs, the nest, and the dung-splashed ledge."

Mr. Salvin, writing in the *Ibis*, states: "In one instance
VOL. I. A

only did we find an egg and a young one in the same nest; in all other cases, one egg or one young one was the invariable number. The eggs appear to be laid in the month of February, as most of the nests contained young in the beginning of April. During the time of incubation, one of the parent birds sits constantly, and, if frightened off, returns immediately. The nest is composed almost entirely of sticks, which are used in greater or less abundance, as the situation requires.

“The eggs obtained from wild birds generally show indications of natural colouring, in addition to the blood and dirt with which they are usually stained. This colouring is dispersed in faint spots of a reddish hue, sometimes all over the egg, but generally at the larger or smaller end.”



EGYPTIAN VULTURE.

EGYPTIAN VULTURE

PLATE II.

<i>Neophron percnopterus</i> ,	.	.	.	.	LINNÆUS.
<i>Cathartes percnopterus</i> ,	.	.	.	.	NAUMANN.

TWO specimens of this species, supposed to be a pair, were observed in the county of Somerset, near the shore of the Bristol Channel, in October 1825. One of the two was obtained; its companion, which remained a few days in the neighbourhood, escaped. A second example was shot in Essex in September 1868.

The nests are placed among high and inaccessible precipices, in crevices and clefts of mountains. They usually consist of a few sticks on which the birds, writes Lord Lilford, "pile up a mass of every imaginable rubbish they can pick up about their favourite haunts—heaps of excrements and refuse that abound in and about almost every village in Spain." Whilst Canon Tristram, describing those in Palestine, says they consist of a foundation of branches on which are heaped "rags, patches, old slippers, and whole basketsful of camel's-hair and wool."

The nests are built about the end of March, or April, and the young do not leave them until July, not being able to take flight before that time.

The eggs vary much in colour, but for the most part they are buffy white in the ground colour, mottled or spotted more

or less with brownish red, one or the other end being occasionally more deeply tinted than the rest. Sometimes they are wholly of a white colour, or bluish white. The varieties are numerous, as every imaginable type occurs between those which are coloured light and others in which the brownish red blotches run together over the entire shell.



ERNE.

ERNE

THE WHITE-TAILED EAGLE—SEA EAGLE.

PLATE III.

<i>Haliaëtus albicilla</i> ,	. . .	LINNÆUS.
<i>Falco albicilla</i> ,	. . .	MONTAGU. GMELIN.
<i>Aquila albicilla</i> ,	. . .	JENYNS.

THE nest of the Erne is a large structure, or rather superstructure, the original one being built upon year after year. It is as much as five feet wide, and very flat, having only a slight hollow in the middle, and is a mass of sticks, heather, or sea-weed, as the case may be. These rough materials are arranged in as rough a manner, being slovenly put together, and lined with any such soft ones as the architects may be able to procure. It is placed on some rocky precipice, or in the hollow of a crag overhanging the sea, or else in some inland natural fortress, such as an island in the centre of a mountain lake, or sometimes on a rock at the edge of one, whence the Erne—

—————“from her cairn on high
Casts on the rout her wondering eye.”

It is also built on trees, even low ones, and only a few feet up. The nests in Pomerania are described by Mr. Seeböhm as enormous structures six or eight feet in width, placed on the top of a pine or on the horizontal branch of an oak or

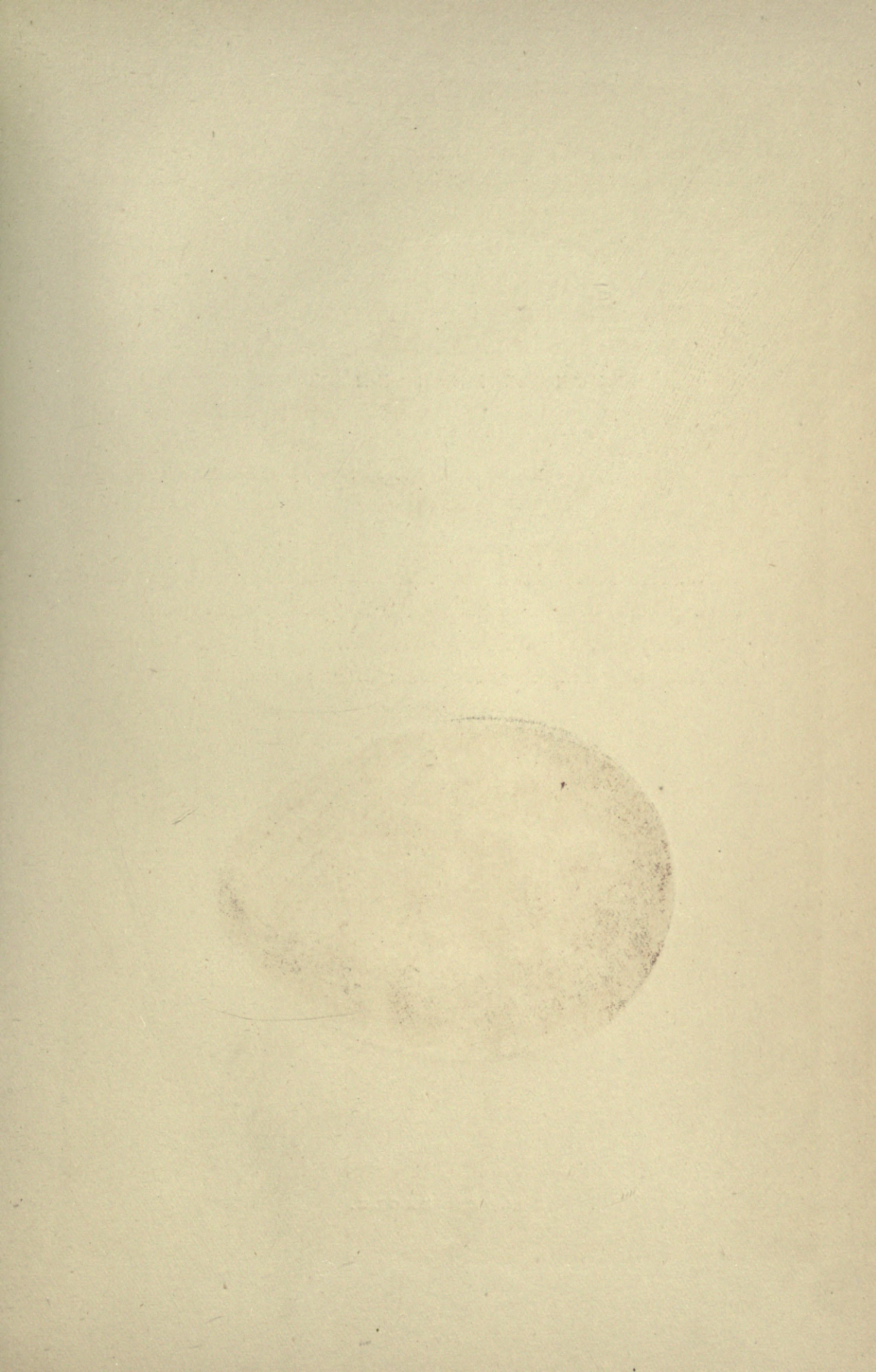
beech. They are usually near the coast, though some are many miles inland, the parents nevertheless bringing the sea fish to the young.

The male bird takes his turn at incubation with the female. The Erne is said to be less strongly attached to its haunts than the Golden Eagle, but it seems to be in some degree fond of them, and not unfrequently returns to the same breeding-places for several years in succession.

The eggs—one, or at the most two in number, though three are said to have been recorded—are pure white; some are covered with brownish stains, derived probably from the feet of the parents. They are much coarser in grain than those of the Golden Eagle.

One of these birds has been known to lay an egg after having been in confinement for more than twenty years.

The young are hatched about the beginning of June, and become fully fledged about the middle of August.





GOLDEN EAGLE.

GOLDEN EAGLE

PLATE IV.

<i>Aquila chrysaëtus</i> ,		LINNÆUS.
<i>Falco fulvus</i> ,		NAUMANN.

LIKE the preceding species, the Golden Eagle locates its nest among high and inaccessible rocks and precipices, or on the rifted bole of some hoary tree, which formerly grew up in vigour in the lonely solitude, but now only remains a mournful wreck, "lean, rent, and beggared by the strumpet wind." Occasionally, though less frequently, a forest tree is pitched upon, reference being naturally had, as was the case with other predatory freebooters in the olden days, to a good look-out both for purposes of aggression and self-defence.

Nidification commences towards the beginning of March, even while the snow is yet on the ground.

The nest is flat and very large; it is always, where possible, re-constructed of, or rather built and rebuilt upon, the old materials, the same eyrie being made use of for many successive years, or it may even be for many generations. It has no lining, according to some authors, but is stated by others to be lined a little with grass, fern, moss, or wool, and where these cannot be procured, or are not in sufficient plenty, with small sticks, twigs, rushes, sea-weed,

or heather. Mr. Woolley gives by far the most graphic description of the nest of this species. He writes:—"A nest is generally five or six feet in its greatest width, considerably less on the top. Sometimes the mass of materials would fill a cart; but in other situations there is no great quantity. The very largest of the sticks used may be an inch in diameter, but most of them are less. Upon these is laid freshly gathered heather, and in one instance large sprigs of Scotch fir, broken off for the purpose. The top part is composed of fern, grass, moss, or any other convenient material, but principally (and, as far as I have seen, invariably) of tufts of *Luzula sylvatica*, which, by the time the eggs are hatched, are still fresh and green towards the outside of the nest, but dried up in the centre with the heat of the bird's body (so as to look) like little flattened pine-apple tops. Once I saw this in a great measure replaced by tufts of a kind of *Carex* or *Nardus*. The hollow of the nest is never deep; but whilst the eggs are unhatched, it is often pretty regular and sharp at the inner edge, and it is not more than a foot from the back wall of rock, close to which the soft materials are generally packed. There is little interlacing of the material, but the whole structure, whilst it appears loose, is yet so firm that it scarcely springs at all with the weight of a man." The hen sits very close. The young are sent away by the parent birds before winter sets in.

The eggs, laid towards the end of the month of March or the beginning of April, generally two in number, but in some cases only one, and in others three, and of a rather oval shape, are white, greyish, or yellowish white, and sometimes completely mottled or marbled over with light russet brown. Varieties in the coloration of the eggs are numerous;

two very distinctive specimens are shown in the plate. Four have been stated to have been found in one nest. They are said to be laid at intervals of two or three days, and to be hatched in the same order of time. Incubation is described as lasting thirty days. If the eggs are removed, it is said that the bird does not lay any more that season.

SPOTTED EAGLE

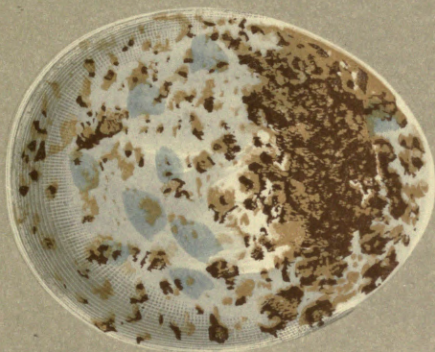
PLATE V.

<i>Aquila nœvia</i> , ...	NAUMANN.
<i>Falco maculatus</i> , ...	TEMMINCK.

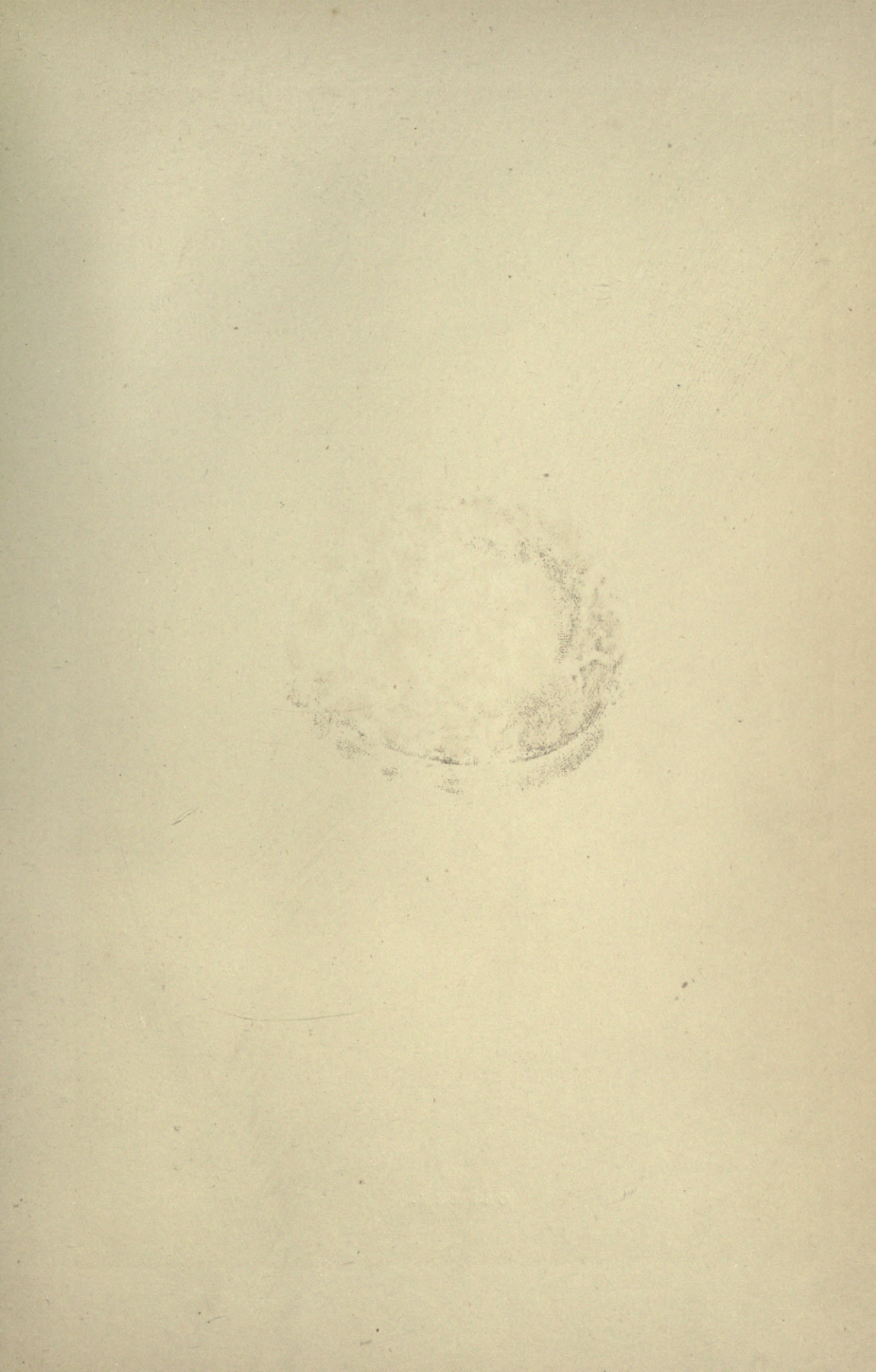
THE Spotted Eagle, a very rare visitor to Great Britain, is described as building its nest, a large structure of sticks, in high trees, but probably other situations, such as those which its congeners resort to, are by it also, in like manner, made use of; thus in the downs of the Dobruscha, where trees are absent, it nests in low bushes, or on the ground itself.

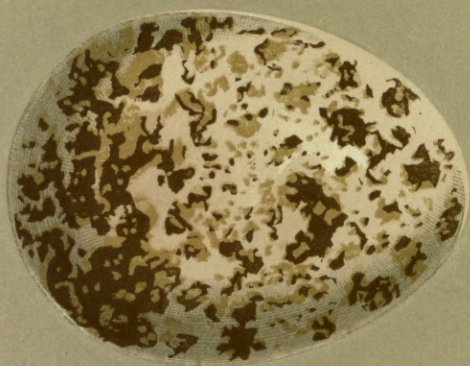
It appears, too, as is the case with the Osprey, to permit small birds, such as the tree sparrow, to build without molestation or hindrance in the immediate vicinity of its nest, or even in the outer parts of the nest itself.

The eggs are generally two in number, occasionally three. They vary considerably in colour and markings, but are generally greyish white, blotched with ruddy brown.



SPOTTED EAGLE.





OSPREY.

VI

OSPREY

FISHING HAWK.

PLATE VI.

<i>Pandion haliaëtus</i> , ...	MACGILLIRAY.
<i>Aquila haliaëtus</i> , ...	JENYNS.

THE nest of the Osprey is built upon the summit of an inland crag, or on some strong natural fastness by the border of the ocean, river, or lake.

Trees are also built on; and where these birds are unmolested, as they are in Pomerania and the delta of the Oder, colonies are formed in the fishing season, sometimes amounting to two or three hundred pairs. The nest is placed at a height of from seven or eight to fifteen, and from that to fifty, feet from the ground. If on a ruin, the highest point of the building is selected. The nest is a cumbrous structure—an immense pile of large sticks and branches, some of them as much as an inch and a half in diameter; the whole forming a mass easily discernible at the distance of half a mile, or more, and in quantity enough to fill a cart. That it is not blown down, or blown to pieces by the wind, is a problem of which it is not easy to give a satisfactory solution. It is occasionally heaped up to a height of four or five feet, and is from two to three feet in breadth, interlaced and compacted with sea-weed, stalks of corn, grass, or turf; the

11

whole, in consequence of annual repairs and additions, becoming by degrees of the character described.

Lonely forests near fresh-water lakes, from which the birds can obtain fish, which constitute its only food, are the favourite breeding-places of the Osprey, a pine tree with a dead top being frequently selected.

The Osprey breeds at the latter end of April and the beginning of May. During the period of incubation, the male keeps near the female, and provides her with food; she sits accordingly very close.

It is a curious fact that smaller birds frequently build their nests in the outskirts of those of the Osprey, without molestation on the one hand, or fear on the other. Larger birds also build theirs in the immediate vicinity, without any disturbance on the part of either.

The eggs differ somewhat in size and shape, preserving the rotundity of form which is characteristic of the rapacious birds. They are commonly three in number, but occasionally two, and in some instances, though but very rarely, as many as four.

Their ground colour is white, or dull yellowish, or dull brownish white, much mottled over, particularly at the thicker end, and in an irregular manner, with brown or rust-colour, with some specks of light brownish grey. The larger spots are sometimes of a very fine rich brown. Varieties of colour are common; some are described as quite purple, others orange red. They are rarely slightly marked, and are regarded by Seebohm as "ranking amongst the handsomest in all the British Isles."



BUZZARD.

BUZZARD

PLATE VII.

<i>Buteo vulgaris</i> ,	.	.	.	.	.	.	LEACH.
<i>Falco buteo</i> ,	.	.	.	.	.	.	LINNÆUS.

THE Buzzard, now becoming rare in this country, pairs in the beginning of March, and may then be seen wheeling about, and often at a great height above the intended nesting-place, "in measured time," in slow and graceful flight.

The nest, which is built of large and small sticks, and is lined, sometimes plentifully, and sometimes sparingly, with wool, moss, heather, fur, hair, or some such soft substance, is placed both on trees in large woods, and also on ledges in the clefts and fissures of cliffs and mountains; the most secure and difficult situations being selected, such as are afforded by the edge of a deep scar, or the bed of a rocky waterfall. Not unfrequently, to save itself the trouble of making a nest of its own, it will appropriate, and repair sufficiently for its purpose, an old and forsaken one of some other bird, such as a Jackdaw, a Crow, or a Raven, and will also frequently return to its own of the preceding year.

The eggs are generally three in number, but sometimes two, and not unfrequently four. They are rather inclined to a rotundity of form, but vary considerably in size, form, and colour generally. They are usually of a dull greenish or bluish

white, streaked and dotted, more especially at the thicker end, with yellowish or pale brown. Sometimes they are perfectly white.

The period of incubation lasts three weeks, the male assisting the female at her task.

Mr. Hewitson states that Mr. R. R. Wingate had the eggs of the Buzzard brought to him from the same place for several successive years, no doubt, he thinks, the produce of the same bird. The first year they were white, or nearly so; the second year marked with indistinct yellowish brown, and increasing each year in intensity of colouring, till the spots became of a rich dark brown.

Two specimens are figured in the plate, one showing the pale bluish, the second the pale brownish ground colour.



ROUGH-LEGGED BUZZARD.

ROUGH-LEGGED BUZZARD

PLATE VIII.

<i>Buteo lagopus</i> ,	.	.	.	.	.	.	FLEMING.
<i>Falco lagopus</i> ,	.	.	.	.	.	.	PENNANT.

THE Rough-legged Buzzard is a rare and irregular visitant to Great Britain. Like many other rapacious birds, it seeks the protection of precipitous rocks for the place of its eyrie, or in their absence selects lofty trees.

The nest is composed of sticks, and is slightly lined with small twigs, mosses, and other soft materials, and, as is the case with many other kindred birds, the original nest is repaired to, and repaired from year to year, a predilection seeming to be entertained for the same building-place.

The eggs, from three to five in number, vary much in colour, some being nearly white, others more or less darkened with blots of a grey hue; some are clouded with pale brown, others richly blotched with dark red.

One variety is of a white ground colour, spotted irregularly all over here and there with rather small yellowish and greenish brown markings, mostly between the larger ones.

A second is also of a white ground colour richly marked all over irregularly with large blots and streaked patches of yellowish brown of different shades.

Others are bluish white, much marked at the smaller end,

and irregularly over the rest of the surface, with dark yellow tinged with pale brown.

I cannot anywhere better give than here, the opinion of Mr. H. F. Walter, which he has favoured me with on this subject, namely that the eggs of nearly all rapacious birds of the Hawk tribe have colour, and only lose their colour when the bird has laid several eggs, the last egg being often white, or nearly so ; and that young birds generally lay more colourless eggs than the old ones.

Two varieties are shown in the plate.



HONEY BUZZARD.

HONEY BUZZARD

PLATE IX.

Pernis apivorus, ... PENNANT.

THE Honey Buzzard, which is a rare summer visitor, occasionally breeding in this country, begins its nest in May, and the young are hatched, according to White of Selborne, at the end of June.

The same author describes the nest of this species as flat in shape and built in trees, in the angle formed by the lower branches and the trunk. It is composed of sticks, larger and smaller, and is lined with leaves or wool, or probably any soft materials that the birds can procure. The bird frequently appropriates to itself the old nest of a Kite or other species, re-lining it with fresh green leaves, those of the beech or pine being generally preferred. Mr. Newcome, as quoted by Prof. Newton, says "that in France the Honey Buzzard when it has young surrounds the nest with a bower of leafy boughs—whether to serve as a screen or a barrier he does not know, and while the bird is so persecuted we in England shall not easily ascertain. The young remain long in the nest, and the boughs as they wither are frequently renewed."

The eggs are two or three in number, and of a general dull rusty or orange red colour, much blotted with still deeper shades of the same, somewhat like those of the Kestrel in

general appearance, but very much darker. They are of a rich appearance, but even in the same nest vary from each other. Some are but slightly dotted over at each end, the middle being belted with a dark red band; some are much blotted with small spots. Others, again, are described by Temminck as yellowish or buff white, marked with large reddish brown patches, and often entirely of that colour, or with numerous spots so close together that the white is scarcely perceptible.

They run through a great number of variations. The ground colour will vary from that of cream to brick red, and the markings from brick red to a deep rich purple blood red. In some cases the ground colour is entirely obscured. Even in the same clutch different varieties exist. The bird is so rare that Mr. Saunders informs us that £40 have been given for a pair of British-killed specimens, and £5 became the standard sum which collectors were willing to pay for a couple of well-marked British eggs.



KITE.

X

KITE

GLEAD—PUTTOCK—FORK-TAILED KITE.

PLATE X.

<i>Milvus regalis</i> ,	.	.	.	.	.	.	BRISSON.
<i>Milvus iclinus</i> ,	.	.	.	.	.	.	SAVIGNY.

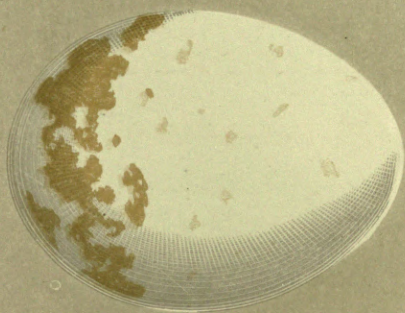
THE nest of the Kite, which is now of extreme rarity in Great Britain, is built "yearly in the spring," for the most part in the covert of a thick wood, and is usually placed between the forked branches of some tall tree, but rather in the middle than towards the top. Occasionally also it is located on some rocky precipice. It is composed of sticks, and is lined with any soft material, such as straw, hair, grass, wool, feathers, old rags, or paper, and is, in fact, an *omnium gatherum*. In former times, when the Kite was plentiful in England, rags were generally to be found amongst the materials, as may be surmised from the speech of Autolycus in "The Winter's Tale"—"When the kite builds, look to the lesser linen" (Act iv., Scene 2). In shape—if the word may be applied to that which is almost shapeless—it is rather flat, though more closely compacted than that of some other birds of the family.

The eggs, which are two or three in number, rarely four, rather large, and somewhat more than ordinarily round, very much resemble, in some instances, those of the Common Buzzard. The ground colour is a dull bluish, or greenish

white, blotched with reddish brown more or less dark in colour, which is sometimes distributed in streaks or spots over the entire surface or massed together at either end.

Mr. Booth, who gives a fuller description of the Kite as now existing in Great Britain than any recent writer, says :—
“All the nests of this species that I have seen have been placed in trees, and in every instance a Scotch fir has been resorted to. The position of the nest varies considerably—sometimes in the very topmost twigs of a small bending pine that is scarcely able to bear the weight of even the lightest climber, occasionally among the higher branches of some large and spreading fir, conspicuous by its size among the giants of the forest, and at times at only the height of fifteen or eighteen feet, placed close to the main stem, where even the immense collection of rubbish that is used as a nursery by this species is scarcely noticed, a situation having been chosen where several large limbs branch out from the trunk.”

Speaking of another nest, he says : “The nest was composed of dead twigs of fir, and lined with sheep’s wool, hair, rags, dirt of every description, and lots of old scraps of newspaper. The food provided for the young consisted of a fresh young Grouse and a squirrel; there were also the remains of a Curlew or two, with plenty of old bones and feathers laying about, showing that Grouse, Pigeons, and Peewits were frequently taken.”



SWALLOW-TAILED KITE.

BLACK KITE.

"XIV"

SWALLOW-TAILED KITE

PLATE XI.—FIGURE 1.

<i>Elanus furcatus</i> ,	.	.	.	.	.	.	FLEMING.
<i>Milvus furcatus</i> ,	.	.	.	.	.	.	JENYNS.
<i>Elanoides furcatus</i> ,	.	.	.	.	.	.	VIEILLOT.
<i>Falco furcatus</i> ,	.	.	.	.	.	.	WILSON.

THIS exceedingly elegant species can only be regarded as an accidental visitor to Great Britain. In Texas, according to Dresser, it nests in June, breeding in society.

The nest, which, according to Audubon, is composed of sticks, and is lined with grass and feathers, and probably any such materials as may be met with at the time when they are required, is usually built on the top of a tall tree; and the vicinity of water is preferred, probably on account of the insects to be found there, which form the principal part of the food of this bird.

The eggs, which are usually two, but it is said sometimes from four to six in number, are described as being of a greenish white colour, irregularly blotted with dark brown at the larger end.

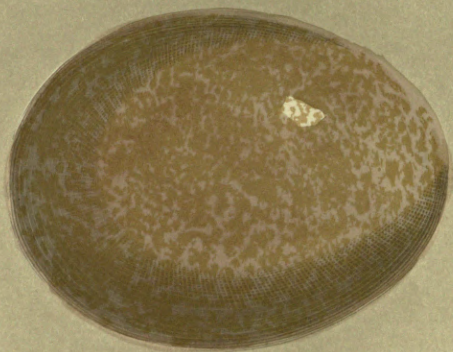
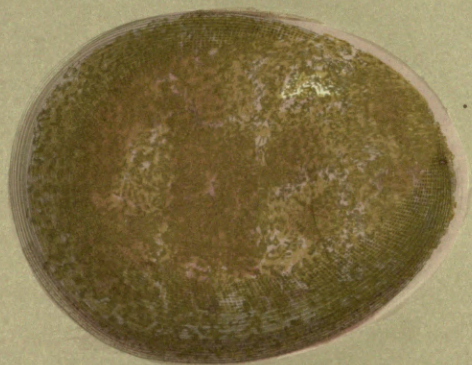
BLACK KITE

PLATE XI.—FIGURE II.

Milvus migrans, ... BODDAERT.

THIS rare bird, only one specimen of which has been recorded in England, migrates regularly from Europe into Africa. The nest, which resembles that of the English Kite, is usually built in a tall tree, or among brushwood, or rocks, the materials being merely sticks, lined with wool, paper, rags, or any other soft materials.

The eggs, generally two in number, although three or four are occasionally produced, are of a dull whitish colour, with blots and spots more or less of light reddish brown or brownish yellow, through which are sometimes seen patches of pale pink. Some specimens are far more deeply marked than others, and in many cases they cannot be distinguished from the eggs of the common Kite.



JER-FALCON.

JER-FALCON

PLATE XII.

<i>Falco Islandicus</i> , ...	LATHAM. GMELIN.
<i>Falco Gyrfalco</i> , ...	LINNÆUS. BEWICK.
<i>Gyrfalco candicans</i> , ...	FLEMING.

THE noble and magnificent Jer establishes its eyrie not only on the highest and most inaccessible rocks, but also occasionally in cliffs that are of lower elevation, both those of the sea coast and those of inland lakes; and, like so many other birds, when engaged in the task of incubation, is particularly daring in attacking any aggressor.

The nest, which is very large, is composed of sticks and roots, and is lined with wool, moss, sea-weed, deer's hair, or probably any soft substance suitable for the purpose which the builders can procure. The Jer-Falcon is occasionally in the habit of appropriating to itself the deserted nest of other birds.

There are several forms of the Jer-Falcon which, according to the views of different authorities, are regarded as one species, or described as distinct and regarded as the Jer-Falcon, the Greenland Falcon, and the Iceland Falcon respectively. Neither can be regarded as British, though specimens of each have accidentally occurred in the British Isles.

The eggs are described as being of a light yellowish

brown colour, dotted with rusty red, with here and there an occasional patch of the same; or dull white, mottled all over with pale reddish brown. They are usually four in number, and of an extremely elegant appearance. It is hardly necessary to state they have never been obtained in England.



PEREGRINE.

XIII.

PEREGRINE

PEREGRINE-FALCON

PLATE XIII.

<i>Falco peregrinus</i> , ...	LATHAM. FLEMING.
<i>Falco communis</i> , ...	LATHAM. SELBY.

THIS "Falcon gentil," a noble bird, builds its nest early in the spring, and the young are hatched about the first week in May. The old situation is resorted to from year to year.

The nest is flat in shape, and is placed on a projection, or in a crevice of some rocky cliff. It is fabricated of sticks, sea-weed, and such like materials. Frequently the bird will appropriate the old nest of some other species, and sometimes be satisfied with a mere hollow in the bare rock, with occasionally a little earth in it.

Mr. Howard Saunders in his Manual states that the Peregrine never builds a nest for itself, but deposits its eggs in April on some overhung ledge of a cliff which is covered with a coating of earth in which it scratches a slight hole, or in the old nests of ravens, crows, or herons, in rocks or trees, occasionally in church towers and steeples, and on the ground in Lapland and Siberia. The eggs he describes as varying from orange to a rich brick red.

The eggs are generally three, but not uncommonly four in

number, and rather inclining to rotundity of form. Their ground colour is light russet red, which is elegantly marbled over with darker shades, spots, patches, and streaks of the same, or freckled with dull crimson, or deep orange brown; sometimes with a tint of purple; or the end is thus marked, the remainder being the ground colour of pale yellowish white, but they vary much, according to the age of the bird.

In the days of falconry the Peregrine was in high request as the most docile of all the birds used for hawking. Since the extensive preservation of game it has been ruthlessly persecuted. Some falconers, however, deny that it is prejudicial to game, and others, on the contrary, like Mr. Booth, in his elaborate notice of this species, maintain that it strikes down birds for the mere purpose of sport.



HOBBY.

XIV

HOBBY

PLATE XIV.

Falco subbuteo, ... LINNÆUS.

THE Hobby, only a summer visitant to England, builds in the trees of woods and forests, generally among the topmost branches, but sometimes in a hole of the trunk. In the former case a preference is given to isolated fir or other plantations, as affording at the same time a less likelihood of disturbance, a better view of approach from all sides, and a supply of the several kinds of food on which the bird lives. It has also been known to build on the ledges of steep precipices and mountains. The same pair will return to the same breeding-place from year to year, if not disturbed.

The nest is built of sticks, and is lined with moss, hair, and other such materials. Occasionally the forsaken tenement of some other species of bird is made to serve the purpose of one of its own fabrication, and it frequently avails itself of that of the Carrion Crow, or of the Magpie.

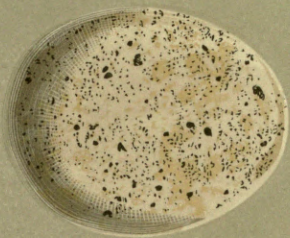
Mr. Seebohm gives a very graphic description of the nest of this species, and writes as follows:—"The Hobby still breeds in some parts of England. My friend Mr. Frank Norgate found it breeding in Foxley Wood, near Norwich, last year, and saw three nests of this rare Falcon in the

same wood one day last spring, each containing three eggs. They were all old Carrion Crows' nests, in oak trees. Mr Norgate robbed them earlier in the spring, on purpose to leave the nests empty for the Hobbies to take possession of. Two of them contained Carrion Crows' eggs, and the other those of the Kestrel. When he afterwards visited the nests he found them all tenanted by Hobbies. In none of the three cases did they appear to have added any fresh lining to the nests. On approaching each of them he found one of the parent birds, probably the male, perched in an adjoining tree. He flew off before the female left the nest; and whilst Norgate was climbing the trees both parents flew round in an excited and alarmed manner, sometimes diving amongst the brushwood, and occasionally very near him, so that he could see their colours very distinctly. Their cries reminded him very much of those of the Kestrel. In one of the nests and on the ground near another were feathers of the Swallow."

The eggs are seldom laid before the first week in June, and often not till the end, and are usually three in number; they are of rather a short and oval shape, and of a dingy white, or bluish white ground colouring, much speckled all over with reddish or yellowish brown.

Mr. Hewitson describes the eggs generally as being very much like some of those of the Kestrel, as well as those of the Merlin; but says that they are larger than either; of a pinker hue, less suffused with colour, and marked with fewer of the small black dots which are scattered over the surface of the others.

The young remain for some time in the neighbourhood of the nest, until they have gradually learned to cater for themselves.



ORANGE-LEGGED HOBBY.

ORANGE-LEGGED HOBBY

RED-FOOTED FALCON.

PLATE XV.

Falco vespertinus, ... LINNÆUS.

THE Orange-legged Hobby or Red-footed Falcon generally uses the nests of the Magpie, Crow, or Rook.

It breeds freely in Eastern Europe, and is more gregarious than most Falcons. Five or six nests may be found in one tree, the previous occupants having been excluded. It is only a very occasional visitor to England, and is even rarer in Scotland and Ireland.

The eggs, from four to six in number, seem to vary considerably; the ground colour being yellowish white, mottled and blotted with two or three shades of light orange brown.

The first figure on the plate is from a specimen in the collection of Mr. H. F. Walter, and is exceptionally light in colour.

MERLIN

PLATE XVI.

Falco aesalon, ... TUNSTALL.

THE nest of the Merlin, the smallest of our British Falcons, is generally, in this country at least, a hollow scratched on the ground, on open moors or heaths; frequently on the side of a ravine, in a tuft of heath, or projection of a rock or bank; and when this is the case, is composed of very scanty materials—a few sticks, with heather, grass, or moss—the bare ground almost sufficing for the purpose. In other countries it appears, occasionally at all events, to be built in trees, and is then made of sticks, and lined with wool. In the Orkney and Shetland Islands it is placed among precipitous and inaccessible rocks. Montagu says that an instance has been known of a Merlin building in a deserted Crow's nest; and in Scandinavia such occurrences are by no means rare. Mr. Booth, in his valuable Rough Notes, says:—"The position of their nests varies considerably. I have seen them placed among the heather on the flat moors, and on more than one occasion on small ledges in the face of steep rocks. The construction of their cradle is not particularly elaborate, small heather-stalks, roots, and fine twigs and fibres of grass being utilised in the construction; it, however, as a rule, fits cosily into some natural hollow in the ground."



MERLIN.

XVI

The female Merlin sits close at first, but if disturbed or alarmed more than once, becomes extremely shy. The male takes up a position near at hand, on the top of some eminence, from whence he can perceive the approach of any intruder, of which he gives notice by shrill cries of alarm.

The eggs, which are usually laid in May, are four to six in number; Bewick says six, and Temminck five or six. They are blotted, particularly at the thicker end, with deep reddish brown, to purplish red. Like the eggs of all the Falcons they vary, however, much in colour. Some of the varieties are often similar to those of the Kestrel or Peregrine, others to those of the Sparrow-Hawk, but still more to those of the Hobby.

KESTREL

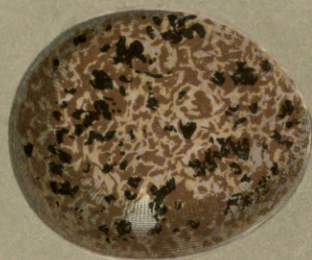
WINDHOVER—STONEGALL—STANNEL HAWK.

PLATE XVII.

Falco tinnunculus, ... LINNÆUS.

SOME pairs of Kestrels seem to keep together throughout the winter. About the end of March is the period of nidification. The young are hatched the latter end of April; and are at first fed with insects, and with mice and young rats as they advance towards maturity.

I am indebted to the Rev. John William Bower, Rector of Barmston, in the East Riding, for the first record that I am aware of, of the breeding of the Kestrel in confinement. The following is an extract from his letter dated November 30, 1849, relating the circumstance:—"A pair of Kestrels bred this summer in my aviary. The female was reared from a nest about four years ago, and the year after scratched a hole in the ground, and laid six or seven eggs, but she had no mate that year. Last winter a male Kestrel pursued a small bird so resolutely as to dash through a window in one of the cottages here, and they brought the bird to me. I put him into the aviary with the hen bird, and they lived very happily together all the summer, and built a nest or scratched a hole in the ground, and she laid five



KESTREL.

XVII

eggs, sat steadily, and brought off and reared two fine young ones."

The eggs of the Kestrel are usually placed on the ground, in rocky cliffs on the sea-coast, chalk-pits, or elsewhere. They are also, when it suits the purpose of the bird, laid in the holes of trees, or of banks, as also on ancient ruins, the towers of Churches, even in towns and cities, both in the country and in London itself; and also in dovecotes. Sometimes the deserted nest of a Magpie, Crow, Jackdaw, or wood-pigeon is made use of. When placed on rocks, hardly any nest is compiled—a hollow in the bare rock or earth serving the purpose. Mr. William Thompson, of Belfast, mentions a curious fact of a single female Kestrel having laid and sat on four eggs of the natural colour, in the month of April, 1848, after having been four years in confinement.

The eggs, which are often laid in April, are four or five in number, sometimes as many as six—six young birds having been found in one nest—are reddish brown, or yellowish brown, more or less speckled or marbled over with darker and lighter specks or blots of the same, and some are even dingy white. Mr. Yarrell says that the fifth egg has been known to weigh several grains less than either of those previously deposited, and it has also less colouring matter spread over the shell than the others; both effects probably occasioned by the temporary constitutional exhaustion the bird has sustained. In the *Zoologist*, page 2596, Mr. J. B. Ellman, of Rye, in Sussex, writes:—"This year I received some eggs of the Kestrel which were rather dirty; so after blowing them, I washed them in cold water, and much to my surprise the whole colour came off, leaving the eggs of a dirty yellow, speckled with drab. Not

long after this I received five eggs from another Kestrel's nest, which were exactly like those I had previously after they were washed."

The eggs of the Kestrel vary very considerably. Some have the colour chiefly at the larger end. They are usually of a deep reddish brown or purplish red without much gloss, but they may be found of varied markings, from brick red to dull yellow chestnut in colour.



LESSER KESTREL.

XVII*

LESSER KESTREL

PLATE XVII.*

Falco cenchris, ... NAUMANN.

THE Lesser Kestrel, which has only once been reported as a British bird, lays its eggs amongst ruins, or in the crevices of mountain rocks.

The eggs are four or five in number, of a reddish white ground-colour, with a great number of little points and spots of a brick-dust red, commingled together and mixed with other small brown spots.

They are usually paler than those of the common Kestrel, but vary considerably in depth of marking.

GOSHAWK

PLATE XVIII.

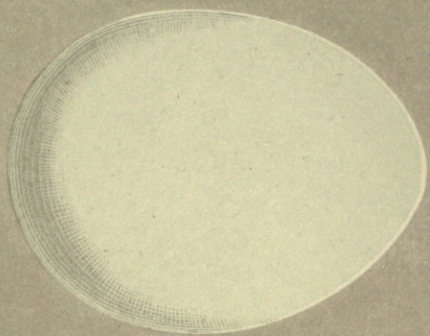
Aster palumbarius LINNÆUS.

THE nest of the Goshawk is rarely to be found in the British Islands, where the bird itself is rare even in its season of migration ; it being a habitant of the wooded districts of the north of Europe.

The nest is usually built in tall fir or other trees, is large in size, flat in shape, and composed of sticks, grass, and moss, loosely put together ; probably the coarser materials are most made use of.

This bird, like others of its tribe, is believed to be frequently in the habit of occupying the same nest for several years in succession, making the necessary repairs from time to time. Though a short-winged species, yet its great power and strength cause it to be largely used in hawking Partridges and Francolins in India. It is even strong enough to capture the wild Peacock, Pheasants, and Hares. In the north of Europe it is most destructive to poultry, Partridges, and even Hares and Rabbits, occasionally devastating dove-cots and poultry-yards.

Mr. Hewitson says that the nest "is placed in some high tree in the interior of the woodland, except in those parts which are cleared, and free from timber."



GOSHAWK.

XVIII

During the time that the female is sitting, she is fed by the male.

The eggs, which are hatched about the middle of May, after an incubation of about three weeks, are usually four in number. They are greenish or bluish white, often with, and sometimes without, or nearly without, a few streaks or spots of pale brown, or reddish or yellowish brown.

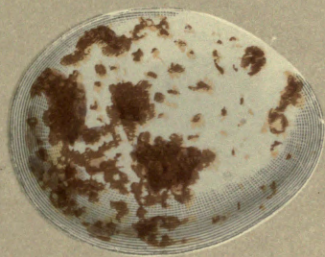
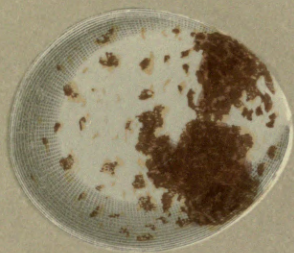
SPARROW-HAWK

PLATE XIX.

Accipiter nisus, ... LINNÆUS.

THE Sparrow-Hawk resembles the Goshawk in usually, Mr. Seebohm says, "always," building its own nest. It has been accused of appropriating the nests of other species after ejecting the lawful owner, but the observations of recent accurate observers are opposed to the statement. It commences its nidification early in May, and occasionally even in April: the young are hatched after an incubation of three weeks.

The nest is usually placed in the deepest woods. Mr. Seebohm gives a very detailed account of it. He says: "It is very rarely found on the topmost branches; it is always placed on the broad branches and near the trunk, not at their extremities. The nest itself is a large one, but the cavity which contains the eggs is small and very shallow. It is always made of sticks, the majority being dead ones, sometimes perhaps conveyed from neighbouring Magpies' nests; and it contains no lining beyond a few roots and, in rare cases, a little moss; but in all the nests which I have seen there was much down, sometimes halfway down the tree, probably accidentally rubbed off the bird as she flew off and on the nest. The larger and coarser twigs form the outside



SPARROW-HAWK.

XIX

portion of the nest, smaller and finer ones the cavity in which the eggs are laid. If built in the fir-woods, the branches of that tree are almost exclusively used, the withered ones being seemingly preferred, although a few living sprays are sometimes woven amongst the rest, and give the nest a bright and pleasing appearance with their emerald-green bursting buds. From the fact that these birds pair for life, the same nest will not unfrequently be used in successive seasons, being patched up each spring, as occasion demands."

The eggs, which are of a very *distingué* appearance, are of a rotund form, bluish white in colour, much blotted, particularly at the base, with very deep reddish brown, and from three to five or six, or even seven in number. They vary, however, very frequently in their markings, which, in some instances, are obscure and indistinct; and in others, the dark blots are at the smaller instead of at the larger end.

MARSH HARRIER

MOOR HARRIER—PUTTOCK—MOOR BUZZARD—
DUCK HAWK.

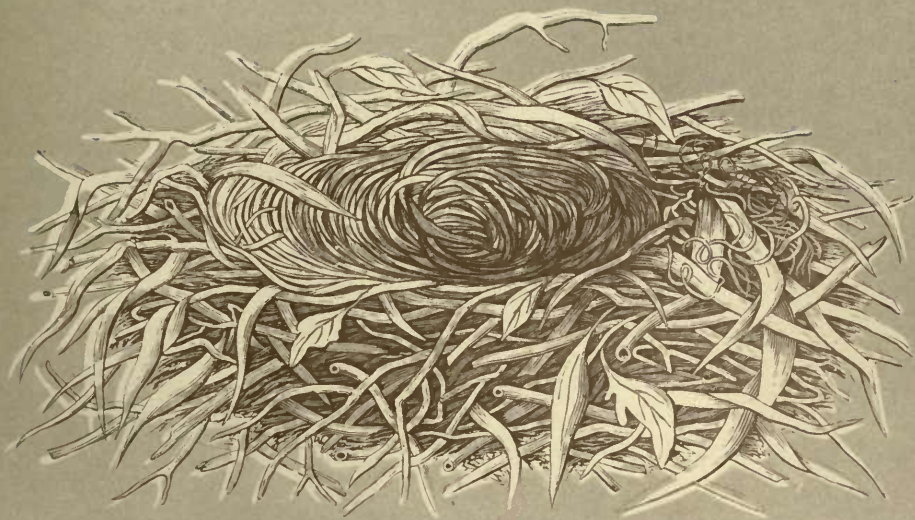
PLATE XX.

Circus æruginosus, . . . LINNÆUS. PENNANT.

THE Marsh Harrier is spread over the whole of Europe, Western Asia, and Africa. It was formerly abundant throughout Great Britain and Ireland, but is now extremely scarce, and known to breed only in a few localities: the drainage of the fens being the chief cause of its disappearance, which has been so complete as a nesting species that even Mr. Booth records that in all his wanderings he never saw a nest.

The nest is usually built among the high reeds which fringe the margin of a lake, pond, or swamp; in a tuft of rushes, fern, or furze; occasionally on a mound; at the edge of a bush; on the top of a stump; or in the hollow of the branches of some tree in any of the former situations. It is a rude fabrication, and is composed of sticks, with reeds, flags, sedge, rushes, grass, or leaves, sometimes forming a mass a foot and a half above the ground.

In the south of Europe, where these birds breed freely in suitable situations, they begin to lay by the end of March, but in the colder regions of Denmark and North Germany,



MARSH HARRIER.

eggs are seldom laid before May. The bird is partially sociable, as Colonel Irby mentions that in Gibraltar he has seen as many as twenty nests within three hundred yards of each other.

The eggs are from three to five in number, slightly tapered at one end, and in general perfectly white, or white with a slight tinge of blue: some are very faintly and slightly blotted with pale green, and others with pale brown. Bewick says that they are irregularly spotted with dusky brown; and Macgillivray describes some he had seen which had a few faint light brown marks.

HEN HARRIER

PLATE XXI.—FIGURE I.

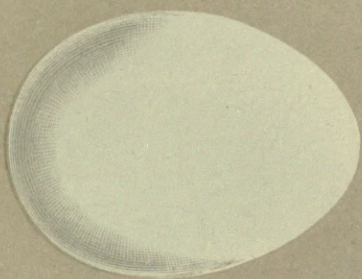
Circus cyaneus, ... LINNÆUS.

THE Hen Harrier, like the preceding species, was formerly common in the fen districts of Great Britain, but since their drainage it has become very rare, except as a migratory species in autumn and winter.

The nest of this bird, which is built on open wastes, and frequently in a furze cover, and placed on or near the ground, is composed of sticks rudely put together, sedge, reeds, flags, and other coarse materials. When placed in deep heather it is made of a considerable height, sometimes as much as a foot and a half; possibly, in such cases, a safeguard against floods, or to enable the sitting bird to see around.

The male is said to feed the female during the period of incubation. The young are hatched early in June; both parents supply them with food.

The eggs are four or five in number, sometimes six: and most frequently white, or bluish, or greenish white, often slightly marked, and in some instances more distinctly spotted with yellowish brown, or light brown.



HEN HARRIER.
MONTAGU'S HARRIER.

MONTAGU'S HARRIER

PLATE XXI.—FIGURE II.

Circus cineraceus, ... MONTAGU.

THE nest of this species, formerly common in the fenny districts, but now rare, is built on the ground among long grass, heather, rushes, or fern, and is composed of moss, hay, or grass, or even formed by a mere hollow in the earth.

The young have been found seated on the ground, near the nest, before they were able to fly.

The eggs, which are white, are from four to six in number. Seebohm has, in addition to one of the normal colours, figured a second exceptional variety from the Volga, with pale reddish brown spots.

SHORT-EARED OWL

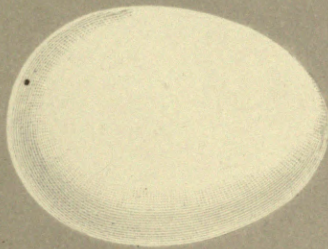
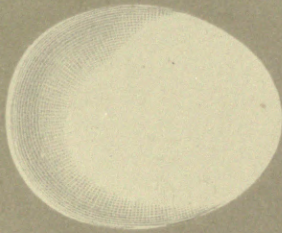
WOODCOCK OWL—SHORT-HORNED OWL—HAWK OWL—
MOUSE HAWK.

PLATE XXII.—FIGURE I.

<i>Asio accipitrinus</i> ,	. . .	NEWTON.
<i>Asio brachyotus</i> , .	. . .	MONTAGU. BEWICK.
<i>Strix brachyotus</i> ,	. . .	LATHAM.
<i>Otus brachyotus</i> , .	. . .	SELBY. GOULD.

THE Short-eared Owl is a very widely distributed species. Large numbers arrive in this country from the north of Europe in the autumn. From the drainage of the fens it does not breed with us so frequently as was formerly the case. The eggs in the fen district are laid in clumps of sedge, and on the moorland in tufts of heather. It is remarkable amongst British Owls for rearing its young in an open nest upon the ground, not, like the majority of the group, selecting a covered site.

The eggs, which are laid in May, are creamy white, of a rotund form, with a smooth surface; they vary from four or six to even eight in number.



SHORT-EARED OWL.
LONG-EARED OWL.

LONG-EARED OWL

LONG-HORNED OWL.

PLATE XXII.—FIGURE II.

<i>Strix otus</i> , ...	LINNÆUS. LATHAM.
<i>Otus vulgaris</i> , ...	FLEMING. SELBY.

THE nests of other birds, such as Crows, Magpies, Rooks, and Ring-doves, are generally, if not always, appropriated by the Long-eared Owl as its domicile, by flattening them and lining them with a few thin sticks, feathers, a little wool or rabbit's fur. It sometimes even locates itself in the nest of a squirrel, and is not deterred by its not being far from the ground.

The eggs, which are of a round shape, and white, and smooth but not glossy, are generally four in number, but sometimes five or six. They are usually laid in March or the beginning of April, by the latter end of which month the young are hatched.

The eggs of the Long-eared Owl appear to be sat upon as soon as laid, consequently young birds and eggs are often to be seen in the same nest. In addition to the nests already mentioned, the Long-eared Owl not unfrequently appropriates the nest of the Heron, and it appears never to build a nest for itself.

EAGLE OWL

GREAT OWL—GREAT HORNED OWL—GREAT EARED OWL

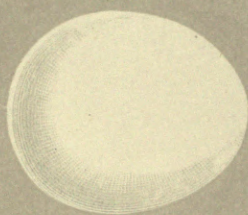
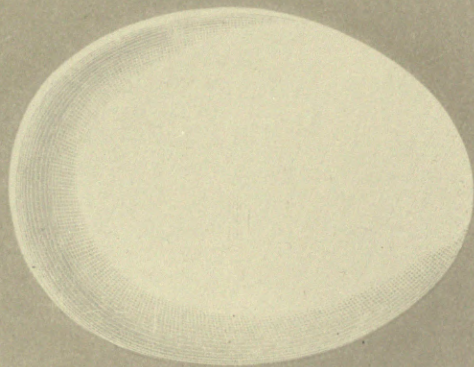
PLATE XXIII.—FIGURE I.

<i>Strix bubo</i> ,		LINNÆUS. MONTAGU.
<i>Bubo maximus</i> ,		SELBY. GOULD.
<i>Bubo ignavus</i> ,		SEEBOHM.

THIS fine species, which very rarely occurs in the British Isles, nests only in the forest districts of Europe. It breeds in trees, taking possession of some old nest of other birds, or laying its eggs, which are two and never more than three in number, on the fur and castings of the animals on which it feeds. Mr. Saunders tells us that when not persecuted it will breed near a cottage, and that in Spain and the Pyrenees the peasants make a practice of robbing the nest of the game supplied to the young by the parents, and substitute any available offal for their food.

Nidification with this species commences the latter end of March. Only one brood is produced in the year. The female sits about five weeks. Incubation begins in April, and the young are hatched in May.

The eggs are two or three in number, white or bluish white, and, like those of all the Owls, of a rounded form, and of a rough chalky appearance. The Eagle Owl breeds freely in confinement, even after having been imprisoned many years.



EAGLE OWL.
SCOPS-EARED OWL.

SCOPS-EARED OWL

LITTLE HORNED OWL.

PLATE XXIII.—FIGURE II.

Scops giu, . . . FLEMING. SELBY. MONTAGU.

THE eggs are generally placed in the holes of trees or rocks, or even in holes in walls; it constructs no nest, a little hollow being scratched out, which is generally lined with castings.

The eggs are white, and from four to five, or sometimes as many as six in number.

The Scops Owl, which is the smallest of the British species, is a very rare visitant, breeding usually in the warmer districts of the south of Europe.

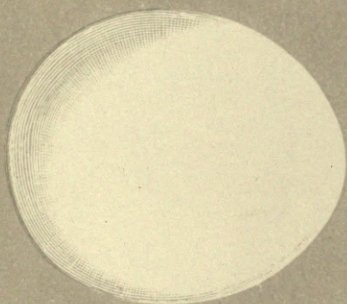
SNOWY OWL

PLATE XXIV.—FIGURE I.

<i>Nyctea scandiaca</i> ,		LINNÆUS.
<i>Surnia nyctea</i> ,		SEEBOHM.

THE nest of this magnificent bird is made on the ground, or upon rocks.

The eggs are white, and from six to eight in number. They are not all hatched together; sometimes the first are hatched before the last are laid, and, as Mr. Collett says, "a natural consequence is that the young of each brood are widely different in appearance, according to the stage of growth which each has attained. Thus the first of the brood will be almost fledged before the last has broken the shell. And, again, the nestlings, thickly clad with down, necessarily *assist in process of incubation*; the old birds have enough to do to provide for the young already hatched, several of which, being more than half-grown, require a good deal of food."



SNOWY OWL.

TAWNY OWL.

TAWNY OWL

BROWN OWL.

PLATE XXIV.—FIGURE II.

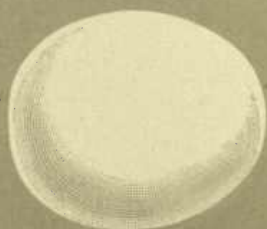
<i>Strix aluco</i> ,	.	.	.	.	LINNÆUS.
<i>Syrnium aluco</i> ,	.	.	.	.	JENYNS. TEMMINCK.

THE nidification of this bird commences in March. The nest, if it deserves the name, is formed of a few soft feathers, a few straws, or a little moss, sometimes merely of the decayed wood in the hollow of the tree in which it is placed. One has been observed so low down that a person could see into it from the ground. Occasionally it is built in rocks, sometimes, it is said, in barns and the like buildings, or even in the deserted nests of other birds, such as Rooks, Crows, and Magpies. The young are hatched in April. They continue to perch among the branches of the trees in the neighbourhood of the nest before finally taking their leave of it, and are fed during the interval by the parent birds.

Mr. Seebohm suggests that, as the eggs and unfledged young are sometimes taken up to August, it is possible that the bird has two or more broods during the season.

The eggs are smooth and white, and from three to four

in number. The first is sat on as soon as laid, so that young birds and eggs are frequently found together, and the young are hatched in about three weeks. They are blind for some days, and their red eyelids look as if inflamed.



WHITE OWL.
MOTTLED OWL.
LITTLE OWL.

WHITE OWL

BARN OWL—SCREECH OWL—HOWLET—MADGE OWL—
CHURCH OWL—HISSING OWL.

PLATE XXV.—FIGURE I.

<i>Strix flammea</i> ,	.	.	.	.	.	.	LINNAEUS.
<i>Aluco flammeus</i> ,	.	.	.	.	.	.	SEEBOHM.

THE White Owl builds its nest for the most part in old ruined and deserted, as well as in existing, buildings, in chimneys, eaves, or mouldering crevices, barns, dove-cotes, church-steeple, pigeon-lofts, and, but very rarely, in hollow trees.

Incubation usually begins in May, and has been known to continue up to November. It has often two or three broods in the season.

The nest, if one be made at all—for oftentimes a mere hollow serves the purpose—is built of a few sticks or twigs, lined with a grass or straw, or, though but seldom, with hair or wool; and this is all that the bird fabricates, and that to but a small extent either in bulk or surface.

The eggs are white, and of a round shape, generally two or three, but sometimes as many as five or six in number, which may be accounted for by the ascertained fact that they will sometimes lay a first, second, and third clutch of eggs, so that the later brood may be hatched before the first leaves the nest; and thus birds in even three stages of

growth may be fed and fostered at one and the same time, the successive broods coming on *impari passu*.

There is no proof that the Barn Owl does any harm to the eggs or birds in the dove-cotes in which it often breeds. Mr. Seebohm records twenty dead rats in one nest, all fresh killed, and yet he says the stupid farmer or gamekeeper will slay the bird if he can, and nail his body against the barn door, under the delusion that he will eat his pigeons.

MOTTLED OWL

PLATE XXV.—FIGURE II.

Strix asio, ... LINNÆUS.

THIS species, which is also known as the American Screech Owl, cannot be regarded as British, and is not recognised as such by any recent writers. In the United States it is regarded as a most valuable bird, from its destruction of mice, and what is there termed the noxious English sparrow.

The nest is placed in the hollow trunk of a tree, sometimes only some six or seven feet from the ground, but at other times as high as from thirty to forty. It is composed of a few grasses and feathers.

The eggs are four or five in number, of a round shape, and pure white; only one set of eggs is laid, unless the nest be disturbed. The young remain in the nest until they are able to fly.

LITTLE OWL

LITTLE NIGHT OWL.

PLATE XXV.—FIGURE III.

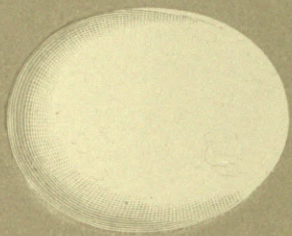
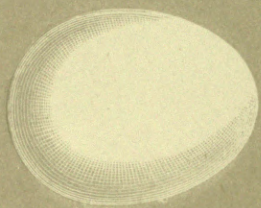
Athene noctua. LINNÆUS.

THE Little Owl is an inhabitant of Southern and Central Europe and Asia Minor; a scarce, occasional visitant to England; not yet met with in Scotland or Ireland. Like the rest of the Owls, it builds early in the spring.

The nest, so far as one is made, is placed in chimneys, ruins, out-buildings, and hollow trees.

The eggs are from four to six in number, and white. The male takes his turn in sitting on them.

The young are hatched, according to Mr. Meade-Waldo, in twenty-eight days.



TENGMALM'S OWL.

HAWK OWL.

XXVI

TENGMALM'S OWL

TENGMALM'S NIGHT OWL.

PLATE XXVI.—FIGURE. 1.

<i>Strix tengmalmi</i> , ...	GMELIN. LATHAM.
<i>Strix funerea</i> , ...	LINNÆUS.
<i>Noctua tengmalmi</i> , ...	JENYNS.

THESE Owls, which are only accidental visitors to the British Isles, are said to breed in holes of trees, and to make no nest, or only to use a little grass for the purpose. But our first knowledge of the breeding of this species was, as Saunders says, derived from Wolley, who found that in Lapland it occupied the *tyllas* or *nus*—nest-boxes formed of logs hollowed out at either end, with a hole cut in the side—set up by the inhabitants for the use of the Golden-eye Ducks; it also deposits its eggs in holes in trees, often in some former abode of the Black Woodpecker.

The eggs, laid between the beginning of May and end of June, are usually from four to six, and exceptionally ten, in number; they are smooth, and white in colour.

HAWK OWL

CANADA OWL.

PLATE XXVI.—FIGURE II.

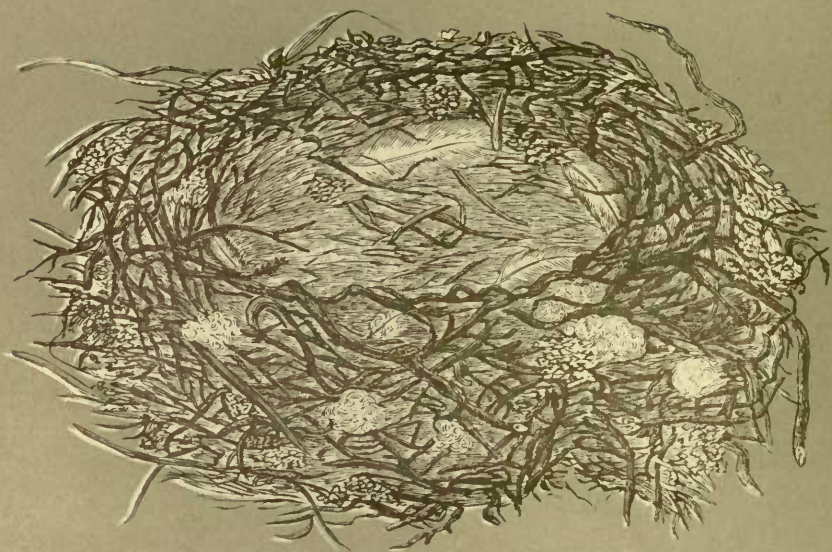
<i>Strix funerea</i> ,	.	.	.	.	TEMMINCK.	LINNÆUS.
<i>Sturnia funerea</i> ,	.	.	.	.	GOULD.	

THE Hawk Owl, of which two races appear to exist in the North of America and Europe, has only occurred some half dozen times in this country.

It makes no nest, but breeds in a hole in a decayed tree.

The eggs, which are from five to eight in number, are white, smooth, and somewhat glossy.

In Lapland it frequently takes possession of and breeds in the nest-boxes placed by the peasants for the use of the Ducks.



GREY SHRIKE.

GREY SHRIKE

GREAT GREY SHRIKE — GREAT SHRIKE — ASH-COLOURED
SHRIKE—GREATER BUTCHER BIRD—SHRIKE—SHREEK—
CINEREOS SHRIKE—MATTAGESS.

PLATE XXVII.

Lanius excubitor, . . . LINNÆUS. PENNANT.

THE Great Grey Shrike is an autumnal visitant, which has never been known to breed in the British Isles, though it frequently does so in the adjacent countries of Belgium, Holland, and France.

The nest is a bulky structure built in trees, some height above the ground. It is ill concealed, but well put together, and is composed of grass, hay, ling, small roots, stalks, and moss, and lined with wool or down, or the finer parts of the outside materials.

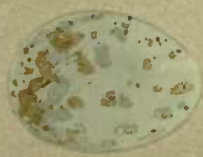
When the hen is sitting, the male is very vociferous if any one approaches the nest, and when the young are hatched both exhibit a clamorous anxiety which often defeats their object and betrays their brood to the bird-nester.

The eggs are five to six or seven in number. They are of a greyish, bluish, or yellowish white ground, spotted at the thicker end with different shades of grey and light brown.

Professor Newton describes them as "white tinged with

green, or occasionally cream-colour, blotched irregularly with olive-green, wood-brown, and dull lilac of various shades ; the markings being sometimes suffused over the greater part of the shell, at others collected into a more or less distinct zone."

The drawing of the nest of this species, from which the plate is taken, was kindly forwarded by Professor A. Newton. Seebohm describes one in Holland as occurring in an oak tree thirty feet from the ground. A somewhat bulky structure, as large as that of a blackbird, composed of slender twigs, dry grass, a few leaves and a little moss, and lined with roots, wool, hair, and feathers.



LESSER GREY SHRIKE.

XXVII*

LESSER GREY SHRIKE

PLATE XXVII*.

Lanius minor, ... GMELIN.

THE Lesser Grey Shrike is only a rare accidental visitor to England, breeding in Central and Southern Europe, and migrating to South Africa in winter.

The nest, which is large, is usually placed in the branches of fruit trees at some height from the ground, and is made of stems of clover and grass, with small sticks, wool, &c., and lined with feathers or hair.

The eggs, from five to seven in number, are white, with a tinge of green or olive, marked with blots, larger and smaller, of a darkish olive and grey colour. Some have a reddish tint, both in the ground colour and in the darker markings, but they are subject to considerable variation.

RED-BACKED SHRIKE

CHEETER—FLUSHER—LESSER BUTCHER BIRD—MURDERING
PIE—JACK BAKER—WHISKEY JOHN—NINE KILLER.

PLATE XXVIII.

Lanius collurio LINNÆUS.

THE nest is placed, without much attempt at concealment, in a hedge or bush. It is large for the size of the bird, being from six to seven inches across, somewhat deep like a cup, and is composed of the stalks of plants, grass, wool, and moss. It is lined with bents, wool, and with hair. The edge on the top rather projects over the side. A nest of this species was taken at Swanscombe, in Kent, in the year 1848, on a high branch of an elm, twenty feet from the ground.

The eggs of this bird are usually more or less spotted with red. In general they are pale reddish white, spotted with two shades of darker red and reddish brown, and the base is encircled by a belt, formed of an irregular conglomeration of the same. Occasionally they are pale bluish white, or white, and sometimes greenish white, spotted with brown and grey or rufous; they are five or six in number. The band already alluded to has been in some cases found at the narrow end. They vary also in size and shape.



RED-BACKED SHRIKE.

Seebohm describes the varieties of the eggs of this species as capable of being divided into four distinct types, the first pale green in ground colour, speckled with olive brown and violet grey; the second pale buff in ground colour; the third almost pure white; and the fourth salmon colour, all being speckled, but the character of the markings varying considerably.

WOODCHAT

WOOD SHRIKE—WOODCHAT SHRIKE.

PLATE XXIX.

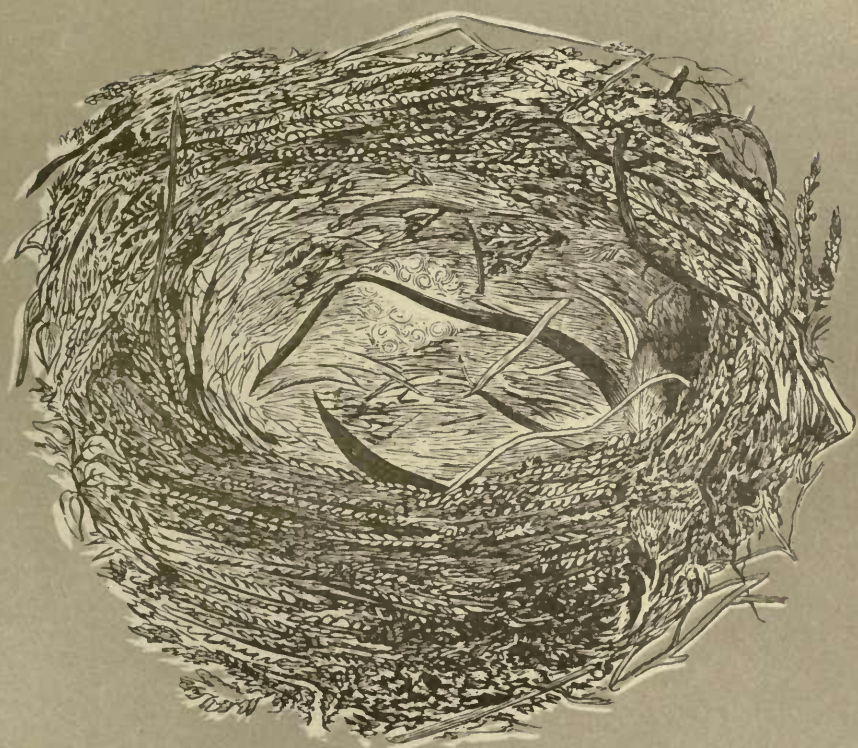
<i>Lanius rufus,</i>		BRISSON. BEWICK.
<i>Lanius rutilus,</i>		LATHAM. MONTAGU.
<i>Lanius pomeranus,</i>		GMELIN.

THE Woodchat Shrike is an accidental visitor to England during the time of migration. Not more than thirty examples have occurred during the last hundred years.

The nest is said to be placed in the angle of the branches of a tree—a preference being given to the oak. It is composed of sticks, wool, and moss, and lined with wool and fine grass.

Both birds sit on the eggs in turn.

Professor A. Newton forwarded the drawing of the nest of the Woodchat, from which the accompanying plate is taken. He describes it as particularly large for the size of the builders, being upwards of three inches and a half in diameter inside, and nearly two inches deep. The outworks of this nest are composed of a flowering plant, the stalks of which are laid parallel to one another, which give the nest a singular appearance. A good deal of wood is used in its construction, and it is lined with dry grass mingled with a few small feathers.



WOODCHAT.

The Woodchat often uses aromatic herbs in the construction of its nest.

Mr. Salvin, describing the breeding of this species in Algeria, says that it "breeds in great numbers on the hill-sides in the neighbourhood of Djendeli, making a nest composed almost entirely of one material, viz., a small grey flower, which the bird collects with the stalk, and entwines into its nest, employing the same for the lining. The whole structure is beautifully neat and compact."

The eggs are usually four or five in number, and varying much in marking, as well as in size and shape. In some the ground colour is pale green, in others dull buffish white, with a band or zone of rust-coloured spots round the lower end; in others the whole surface is more or less spotted with a lighter colour. A rare variety has the ground reddish buff.

Mr. Hewitson describes one from the collection of the Messrs. Tuke, of York, in which the spots, which are large and deep, and in colour of a brown or neutral tint, are scattered equally over the whole surface.

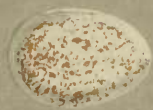
GREAT TITMOUSE

OXEYE—BLACK-CAP—GREAT TIT—SIT-YE-DOWN—GREAT
BLACK-HEADED TOMTIT—TOM COLLIER.

PLATE XXX.

Parus major, ... LINNÆUS.

THE nest is usually made in a hole of a tree or of a wall, or crevice of a rock; sometimes the forsaken nest of a Crow or Magpie or even squirrel is converted into a tenement. Not unfrequently it is placed in a pump either used or unsued, the door-way being by the orifice for the handle. Sir Charles Anderson, Bart., wrote me word of a pair which thus built for many successive years, ten at the least, although each year the nest was destroyed by the working of the handle. I have known one on the side of a roof under the tiles, another between the boughs of a tree, only some three or four feet from the ground. In some cases a hole is worked out for itself in the decayed wood of a tree. The same site is often frequented from year to year, if its tenants are not disturbed. The nest has been known to have been built far up among the rafters of a house; or in a window-frame, the entrance being through the opening for the weight; and others under inverted flower-pots. It is composed of a quantity of moss, feathers, leaves, hair, or other materials loosely compacted. Occasionally when a first nest



GREAT TITMOUSE.

XXX

has been taken or destroyed, and the bird is in a hurry about her second brood, the eggs are laid on the dust of the wood.

A nest in the wall of a house has been found to have been exclusively composed of rabbit's fur; all the corners of the hole were filled with it: in the middle was a most exquisitely-formed round hollow.

Still more extraordinary places have been selected. Dr. Bowdler Sharpe speaks of one in Hyde Park in the inside of an iron post in a railing, the entrance being through a small defective hole in the ironwork. If a large hole has to be filled up the birds will take in a large amount of moss, on the top of which they will occasionally make two or three nests. At South Kensington may be seen a wooden post-box from Rowfant, Sussex, in which for two or three years in succession a pair of Great Tits built their nests, not even moving out when the letters were dropped on the back of the sitting bird. And one has recently been recorded in an upright iron pipe three-and-a-half inches in diameter, which served as a ventilating shaft to a manure pit. The top of the pipe was six feet from the ground, and the nest was placed about two feet down. It was most interesting to watch the old birds descend with the food for the young down the pipe, and a matter of surprise to note how readily they worked their way to the top after each time they fed the young.

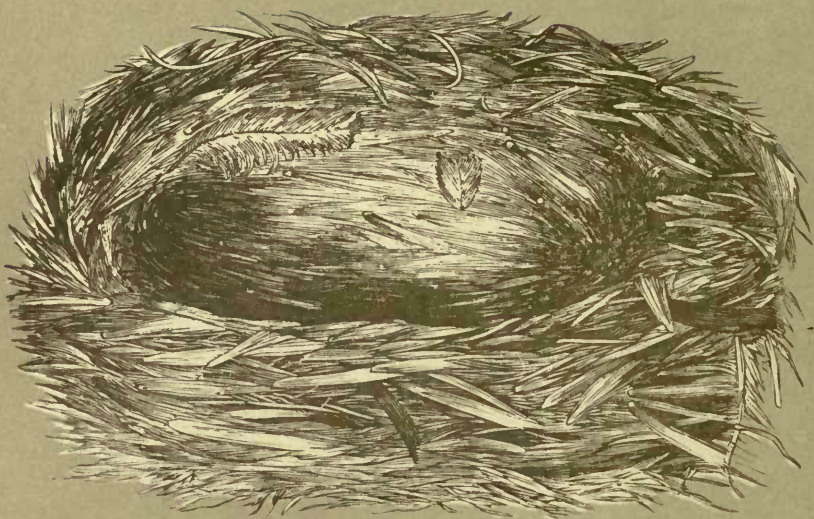
The eggs, from six to nine or ten in number, are pure white or white tinged with yellow, dotted all over irregularly with reddish brown.

One variety is thus much marked at the thicker end, with a few scattered specks over the remainder of the surface.

A second is very elegantly dotted with rather large spots, few in number.

The hen sits closely on the eggs, and the male keeps a station not far off; both of them are equally pugnacious in defence of their progeny, the latter uttering loud cries of anger or distress, and the former hissing as she sits.

The young are said, after they have left the nest, not to return to it, but to perch for some time in the neighbouring trees, and to keep together until the following spring. It is somewhat singular that the eggs of this species resemble those of the Nuthatch, to which bird it also has some similarity in the loud tapping noise it occasionally makes against the trunks of trees, and which has been conjectured to be for the purpose of frightening insects out from under the bark.



COLE TITMOUSE.

COLE TITMOUSE

COLE TITMOUSE.—COLEMOUSE.

PLATE XXXI.

Parus ater, ... LINNÆUS.

THE nest is placed in a hole of a tree, and, according to Mr. Hewitson, at a less height from the ground than that of the other Titmice, even in the hollows about the roots; sometimes in the hole of a wall, or of a bank, or in that of a mouse, rat, or mole; it is made up of moss, wool, hair, fur, and feathers. This bird, like the Oxeye, and doubtless others of its race, will enlarge a hole for its accommodation by removing the pulverised particles of wood which have partially filled or lined it.

The eggs, from six to eight in number, are, like those of its fellows, white spotted with light red: some have a tinge of yellowish.

Incubation lasts about a fortnight, the male and female sitting by turns; the young are fed principally with caterpillars. Two broods are hatched in the year, of which the first is fledged in May.

CRESTED TITMOUSE

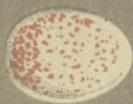
CRESTED TIT.

PLATE XXXII.

Parus cristatus, ... LINNÆUS.

THE Crested Titmouse is a very local species, being rare in the British Islands, and breeding only in the North of Scotland.

The nest, which is composed of grass, moss, or lichens, and feathers, or any soft materials, is usually placed in a hole of a tree—the oak being said to be preferred—or in the deserted nests of Crows or squirrels; probably the particulars related of the other Titmice would apply to this one also, as to its location, for a nest examined by Mr Hewitson was thus scooped out. He writes as follows:—"When trees are felled in the forests in Bavaria, their trunks are left standing about two feet above ground; and in the decayed wood of one of these a hole was scooped to contain the nest of which I have spoken—just such a situation as would have been chosen by the Cole Titmouse." It appears sometimes to build a nest for itself in a bush, and with an opening on the side, but Mr. Howard Saunders suggests that this is the occupancy of a deserted nest of the Wren or Long-tailed Titmouse. In Scotland the nest is generally placed in the rotten stump of a fir or pine tree broken off by the wind;



CRESTED TITMOUSE.

XXXII

a hole being bored in the tree, from two to eight feet above the ground.

Mr. Selby's assertion, which has been impugned, that he had seen one of the Titmice engaged in hollowing out for itself a place for a nest in the wood of a "decayed" tree, is most fully borne out by all the writers on the subject who are best entitled to credit. Among such there seems to be no difference of opinion about it, so that it is difficult to imagine, in the presence of facts, how the contrary opinion could have suggested itself.

They nest usually at the end of April or beginning of May.

The eggs are from seven to ten in number, white, spotted and speckled, most so at the larger end, with light brownish purple red, some with yellowish red or rich deep brown.

BLUE TITMOUSE

BLUE-CAP—BLUE TIT—BLUE-BONNET—NUN—TOMTIT—
BLUE MOPE—BILLY-BITER—HICKWALL.

PLATE XXXIII.

Parus cæruleus, ... LINNÆUS.

THE nest, which is composed of grass and moss, and lined with hair, wool, and feathers, and is built in March or April, is usually placed in the hole of a tree, about half a dozen or a dozen feet from the ground, or even close to it. Frequently a hole in a wall is made use of, sometimes the top of a pump, though the bird may be continually disturbed, or the nest even in the first instance destroyed by the action of the handle, the entrance being the cleft for the handle to work in.

Speaking of one instance of this kind, Bishop Stanley says:—"It happened that during the time of building and laying the eggs, the pump had not been in use; and when again set going the female was sitting; and it was naturally supposed that the motion of the pump-handle would drive her away. The young brood, however, were hatched safely, without any other misfortune than the loss of a part of the tail of the sitting bird, which was rubbed off by the friction of the pump-handle." And again: "We knew of another pair of Titmice, which for several days persevered in inserting,



BLUE TITMOUSE.

close upon the point of the handle, the materials for a nest; though every time the handle was raised, they were either crushed or forced out, till the patience of the persevering little builders was fairly exhausted."

The most extraordinary situation, however, that I have heard or read of for the location of the nest of this, or of any other, species of bird, was within the jaws of the skeleton of a man, who had been executed and hung in chains for murder.

Mr. Hewitson records the following, communicated to him by Mr. Heysham, of Carlisle:—"A few years ago, when upon an entomological excursion, wishing to examine the decayed stump of a tree, which was broken to pieces for that purpose, and the fragments dispersed to a considerable distance by a severe blow, a Blue Titmouse was found sitting upon fourteen eggs, in a small cavity of the root; and notwithstanding the above severe shock, she remained immovable, till forcibly taken off the nest; sometimes, even if taken off, she will return." Again: "An earthen bottle was placed on the garden wall of Mrs. Chorley, of Bolton, near Lancaster; in this a pair of Blue Titmice built their nest, hatched their eggs, and reared their young. There was no cork in the bottle, and the birds had no other way of entrance than through the mouth, going up and down the neck of the bottle every time they carried food to their young ones, all of which, ten in number, were reared without accident, and made their escape unmolested through the neck of the bottle. When they were fairly gone, the bottle was taken down, and the old nest found within. The bottle was fifteen inches deep, and the neck one inch in diameter. I am at a loss to know how the birds could manage to ascend."

Mr. Thompson mentions a similar use made of an ornamental jar; and in another instance, communicated by Mr. Poole, the male used to feed the female through the neck of the jar.

In the *York Herald* of June 18, 1852, I find the following:—"So far back as the year 1779, a pair of Blue-caps built their nest, and brought up their young, in a large stone bottle which had been left to drain on the lower branches of a plum tree, fronting the farmhouse near Stockton now occupied by Mr. Callendar. During this long period, seventy-three years, this bottle, with the exception of last year, has been annually tenanted in the breeding-season, from generation to generation, by these little gay-plumaged visitors; and as they generally lay each year about fourteen eggs, it may fairly be computed that this wonderful, inexhaustible bottle, has been the birthplace of above a thousand Blue-caps. About thirty years ago, the old plum tree, upon whose boughs the bottle was first placed, having fallen into a state of decay, the bottle was placed upon the branches of an adjoining plum tree, to which it is now fastened by iron hoops. The little creatures, however, did not desert their favourite tenement by this change. Last year they made their appearance, as usual, at the bottle, but the inmates of the farmhouse having neglected to draw the previous year's nest out of it, the birds, not having room to build, were necessitated to seek other quarters. This year, however, they have built again in their old residence, where they are at present daily employed in attending to the wants of a numerous progeny."

The nest is also often placed under the eaves of houses, the tiles of the roof, or any suitable part, of an out-of-doors building; if in a tree, the outer passage leading into an

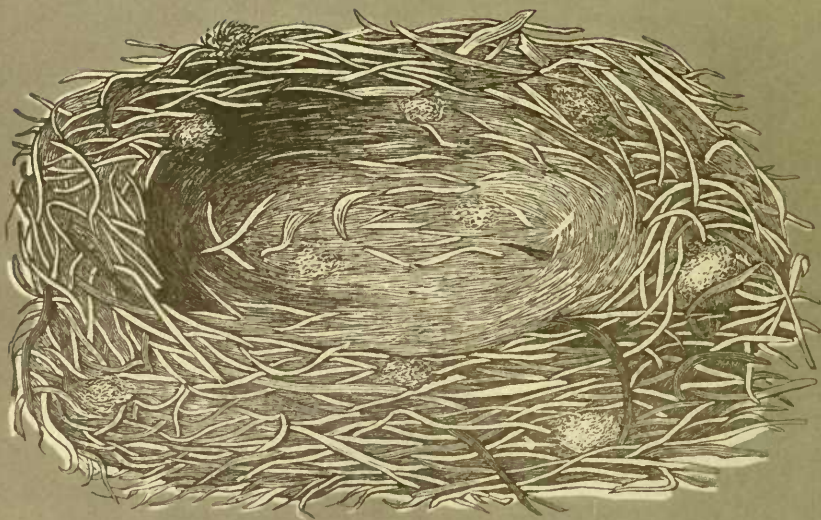
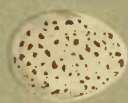
inner apartment is hollowed out by the bird itself in a truly marvellous manner, as smoothly as if wrought by the hand of man; one has been known to build in the end of a disused leaden pipe.

Mr. M. Saul has narrated, in the *Zoologist*, the following most singular instance of something akin to reasoning in a case of the kind, if indeed the motive was such as he has imagined:—"Two birds made their appearance; one entered the hole, and appeared to be pecking away at the wood inside, for, as it managed to separate piece after piece, it brought them to the other bird, which remained at the entrance; and this last flew away with each piece, and carrying it to a distance from the tree, dropped it on the middle of the road, as if to avoid the detection which was almost sure to follow, if the chips had been carelessly dropped at the foot of a tree in a frequented thoroughfare."

A singular situation for a nest has been described by the authors of the "Birds of Devon." It was on the dried-up body of a Redwing lying on its back in the cavity of an apple tree, and on the breast and between the partially expanded wings which formed a cup-like hollow, a Blue Titmouse had built its nest and laid nine eggs. Mr. Booth describes a nest that was built in an iron lamp-post in Montpellier Road, Brighton, which the bird made use of many years in succession. There is no doubt that the same nest is frequently repaired from year to year; the Revs. Andrew and Henry Matthews have known one resorted to for twelve successive years. It is said, however, that if two broods are brought up in the year two different situations are chosen for the purpose; sometimes two pairs will quarrel for the same situation.

The eggs are generally seven or eight in number, but

have been known to be as few as six, and as many as sixteen, and some have said even eighteen or twenty; but this appears doubtful, the usual number being from eight to twelve. They are of a delicate white, more or less spotted, and most so at the larger end, with clear rufous brown or light red.



MARSH TITMOUSE.

MARSH TITMOUSE

MARSH TIT—BLACK-CAP—SMALLER OXEYE—WILLOW-BITER—JOE BENT.

PLATE XXXIV.

Parus palustris, ... LINNÆUS.

MR. HEWITSON, on the authority of Montagu, says that considerable pains are taken by this species in hollowing and scooping out a suitable cavity for its nest, as it works, always downwards, in forming a passage to a larger apartment at the end. Montagu has observed it carrying away the chips to some distance in its bill.

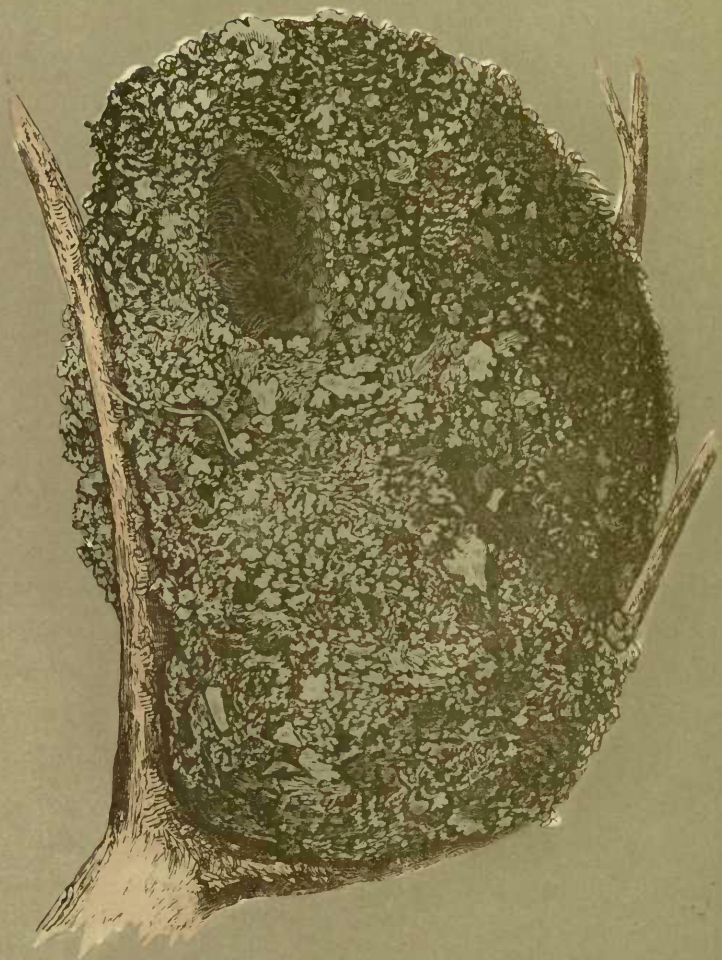
The nest is described by the former as being somewhat more carefully made than that of others of the Titmice. It is formed of moss, wool, grass, willow catkins, horse-hair, and any other soft materials, and is placed in the hollow of a tree, such as is afforded by the head of a pollarded willow, whose decapitation has been followed, as a necessary consequence, by decay.

Mr. Booth, speaking of this species, writes:—"The nest is occasionally found in holes in trees or banks. One was pointed out to me some years ago in a small cavity in a grass-park, that must originally have been either a mouse-hole or a bees' nest. The eggs, like those of the rest of the

Titmouse family, are, when first laid, of a beautiful pale pink tinge, with red-brown spots. As soon as incubation commences the beauty of the shell disappears, the general colour becoming a dirty white, and eventually a livid hue."

The nest from which the engraving has been made was forwarded from Rutland. It appears to be entirely composed of fine hair and down, with a few thin fibres of wood intermixed.

The eggs are from five to seven or eight in number, are white, spotted with dull red, and most so at the thickest end, the other being more free from them: they are hatched in about thirteen days. The young do not fly until the end of July, and even nests and eggs have then been found, but it is possible that these may have been second broods.



LONG-TAILED TITMOUSE.

LONG-TAILED TITMOUSE

LONG-TAILED TIT—MUM RUFFIN—BOTTLE TIT—LONG-TAILED
PIE—LONG TOM—BOTTLE TOM—POKE PUDDING—LONG
POD—HUCK-MUCK—LONG-TAILED MAG—MUFFLIN—LONG-
TAILED MUFFLIN.

PLATE XXXV.

<i>Acredula caudata,</i>	.	.	.	LINNÆUS.
<i>Parus caudatus,</i>	.	.	.	PENNANT. MONTAGU.
<i>Parus longicaudatus,</i>	.	.	.	BRISSON.
<i>Mecistura rosea,</i>	.	.	.	DRESSER.

WITH this species nidification commences early in March.

The nest of the Long-tailed Titmouse, the situation of which is repaired to frequently from year to year, is beautiful, and I may say wonderful. It is a hollow ball, generally nearly oval, with only one orifice; some have said two, to account for the location of the tail, which is said to project through one of them; and Mr. Hewitson describes one that he saw which had two openings, leaving the top of the nest like the handle of a basket, but such must be exceptional or accidental cases. In the year 1852, a similar instance occurred in the garden of the Messieurs Dawson, of Poundsworth Mill, near Driffield. A French writer has explained that one orifice is intended for a front and the other for a back door. Mudie writes as follows:—"They, in the case of two apertures, sit with the head of the male out at the one,

and the tail of the female out at the other, so that both the apertures are partially closed, and the male is ready to start out as soon as there is light enough for hunting, . . . the male going out first in the morning, and the female last at night !” (Bewick says that the male has his head and the female her tail out of the same hole.) There being, however, in reality but one orifice through which they “have their exits and their entrances,” will perhaps be a sufficient answer to both these theories. How the birds manage is another question, but certain it is that it is so. The nest is so admirably adapted by the lichens or moss it is elegantly covered with to the appearance of the tree it is built on, as to make it oftentimes very difficult to be detected.

It is generally placed between the branches of a tree, unlike those of the other Titmice, and frequently not far from the ground, or firmly fixed in a bush ; is composed of moss, small fragments of bark and wool, compacted with gossamer-like fibres, and the cocoons of spiders’ eggs, and the chrysalides of moths, and plentifully lined with feathers, so much so, as in some parts of the country to have acquired for it the *sobriquet* of “feather-poke ;” one, on their being counted, was found to contain two thousand three hundred and seventy-nine. It is, as may be supposed, waterproof and very warm.

It is from five to seven inches long, by three or four wide, and the aperture about an inch and a half in diameter, and the same distance from the upper end. The elasticity of the materials of the nest tend to keep it rather closed. One has been seen in which a feather of the lining acted as a valve or door, but I think this must have been accidental. The fabrication of the nest occupies from a fortnight to three weeks ; and the credit of the handiwork belongs to both male and female ; she not being, as has been asserted,

the sole architect. They both, as it were, knead it during its formation with their breasts and the shoulders of their wings, aided by every variety of posture of the body.

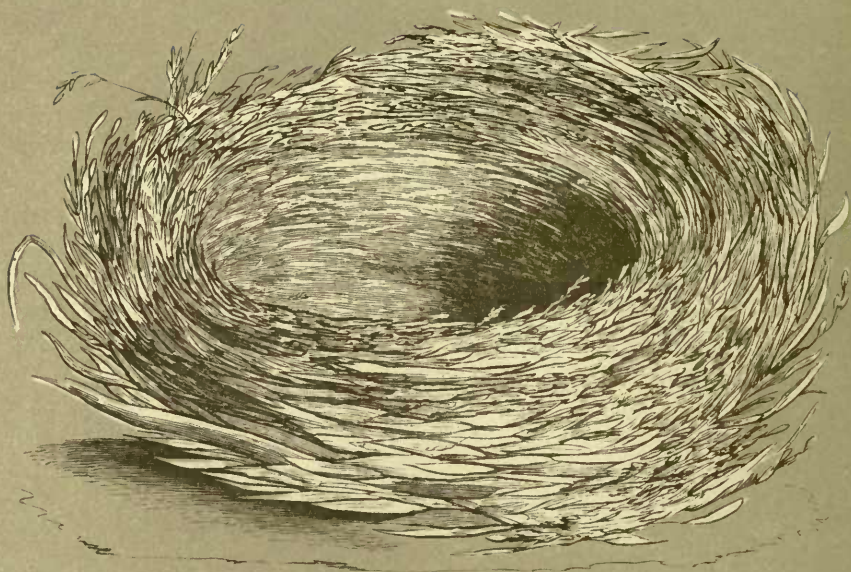
In reference to these varied accounts of the construction of the nest of the Long-tailed Titmouse, Mr. Booth, a practical field naturalist, writes :—"There are some curious descriptions given of the nest in various publications. It has been stated that a couple of apertures are left by which means the parent birds are able to dispose comfortably of their long tails, their heads being reported to look out from one hole while their caudal appendages protrude from the other. This, I fancy, is simply imagination; if two or more openings have been found in one nest, their presence can only be accounted for by the injury the structure has suffered by removal from its original site. Branches or twigs are built into the outer covering; and when taken, however carefully, some part of the exterior is certain to be torn; and these openings have been considered natural. I have examined nests removed from oak branches, which might easily be supposed to have been furnished by the builders with a couple of entrances."

The eggs are from ten to twelve in number, and occasionally, but very rarely, as many as sixteen. In reference to these cases, Mr. H. Horsfall, of Calverley House, near Bradford, Yorkshire, writes as follows in the *Zoologist*, p. 2567 :—"I suspect where the greater number is found, there will be more than one pair of birds attached to the same nest. I have known several instances where a considerable number of birds have had one nest in common: in one instance there were nine." They are sometimes entirely white, or with the spots almost obsolete, but generally spotted a little with pale red. They are, as may be imagined, very small, being not much bigger than a not large pea.

One variety is white, with a most elegant band of faint pink, with spots on it of a deeper tint around the base.

Another, also white, is covered all around the base with numerous small dots of yellowish and orange brown.

A third is white, with a few dots all over it of pale orange brown.



BEARDED TITMOUSE.

BEARDED TITMOUSE

BEARDED TIT—PINNOCK—BEARDED PINNOCK—
REED PHEASANT.

PLATE XXXVI.

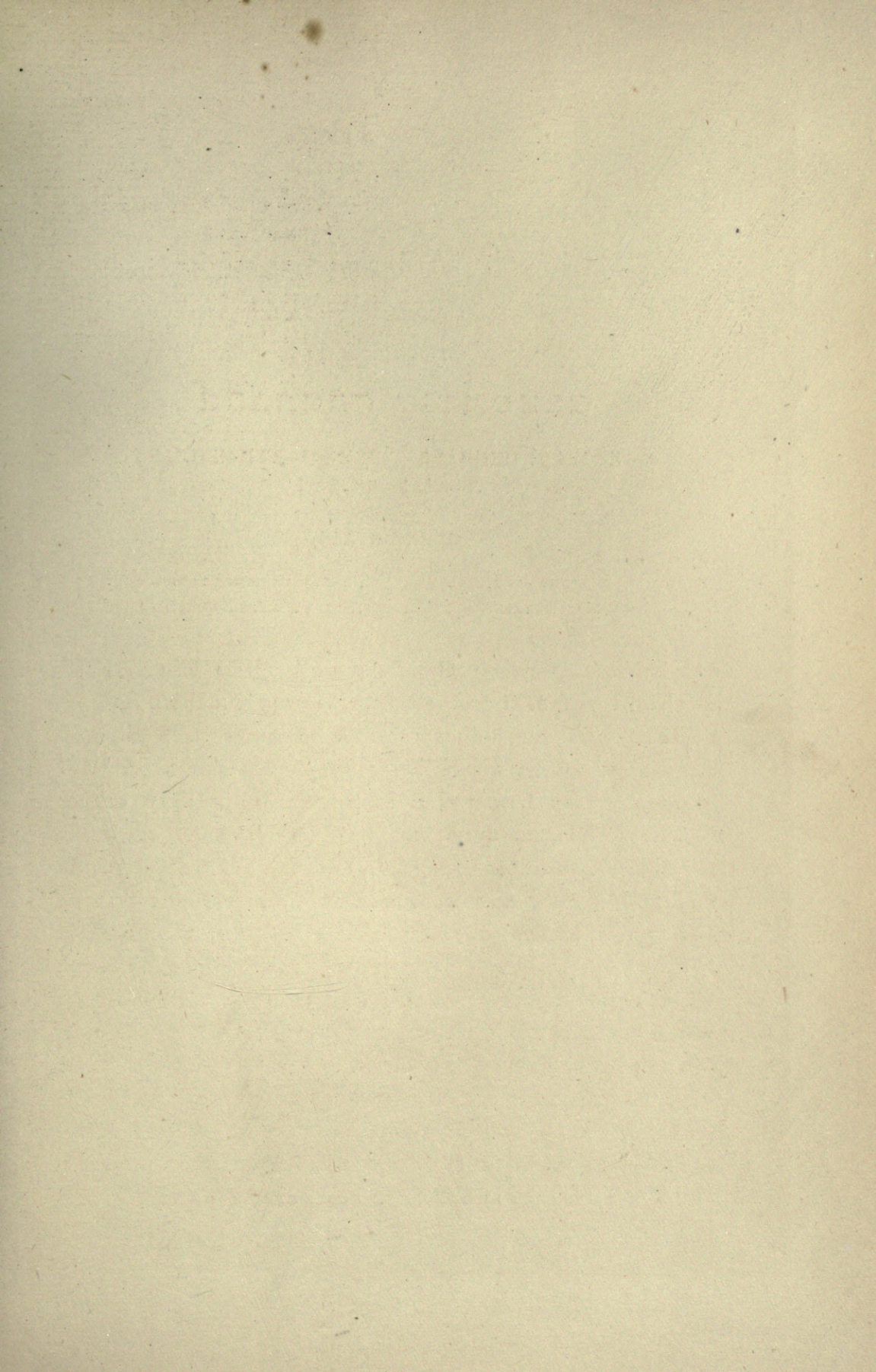
Panurus biarmicus, . . . LINNÆUS.

Calamophilus biarmicus, . . . JENYNS. GOULD.

THE nest of the Bearded Tit is, owing to the drainage of the fens, now only to be found in the Broads of Norfolk, being scarce even there; and in one district, which Mr. H. Saunders knows but judiciously refuses to disclose to the spoilers, in Devonshire it is placed among tufts of grass, sedge, or crushed reeds, on the ground, and is formed of dry stalks and blossoms of grass, reeds, and sedge, the finer ones on the inside, and the coarser on the outside. The birds usually nest early in April, two broods being produced during the year.

“The nests,” writes Mr. Booth, who was very familiar with the species, “are not unfrequently situated but a few inches above the level of the water, and consequently are extremely liable to be submerged if the tides rise suddenly either from a heavy fall of rain or a flow of salt water up the rivers. In such cases the birds at once commence a second nest on the top of their first edifice.

The eggs, which are from four to six, rarely seven, in number, are of a white or faint brown colour, irregularly streaked with wavy lines of reddish brown; some are more strongly marked than others, which is the only variation to be noted.





PIED FLYCATCHER.

PIED FLYCATCHER

PLATE XXXVII.

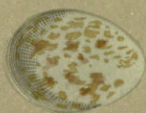
Muscicapa atricapilla, ... LINNÆUS.

NIDIFICATION takes place in May, and the young are hatched the beginning of June.

The nest, which is composed of moss, grass, straws, chips of bark, leaves, and hair, is built sometimes high up in trees, but often only a few feet from the ground, in a hole of a tree, or of a wall, or bridge, as also, occasionally, on a branch or stump of a tree. This species seems to have a predilection for the neighbourhood of water, probably on account of the greater number of insects to be met with there. The same situation appears to be resorted to in successive years. Booth remarks that they appear to prefer situations more densely wooded than their relative the Spotted Flycatcher. I observed two or three pairs among the fine old timber in the large woods in the park at Edenhall; and they also frequented the plantations on the banks of the Eden.

The eggs, from four or five to seven or eight in number, are small, oval, of a beautiful pale blue, or sometimes nearly white, and usually perfectly free from spots; though Newton and Saunders say there are occasionally a few fine specks of reddish brown. Those observed in

one nest by Mr. T. C. Heysham, of Carlisle, were disposed as follows:—"One lay at the bottom, and the remainder were all regularly placed perpendicularly round the side of the nest, with the smaller ends resting upon it, the effect of which was exceedingly beautiful." The young are hatched in about a fortnight: both birds by turns sit on the eggs.



RED-BREASTED FLYCATCHER.

XXXVII*

RED-BREASTED FLYCATCHER

PLATE XXXVII.*

Muscicapa parva, ... BECHSTEIN.

THE Redbreasted Flycatcher is a very rare visitant, which has only been captured three times in England. The nest, like that of the last species, is usually placed in a hole in a tree, and is formed of green moss and lichen, lined with dried grass and hair.

The eggs, which are from five to seven in number, are of a pale greenish ground colour, mottled with rusty brown. They vary considerably, some being much greener than others.

SPOTTED FLYCATCHER

BEAM BIRD—RAFTER—COB-WEB BIRD—BEE BIRD—CHERRY
CHOPPER—CHERRY SUCKER—CHANCHIDER.

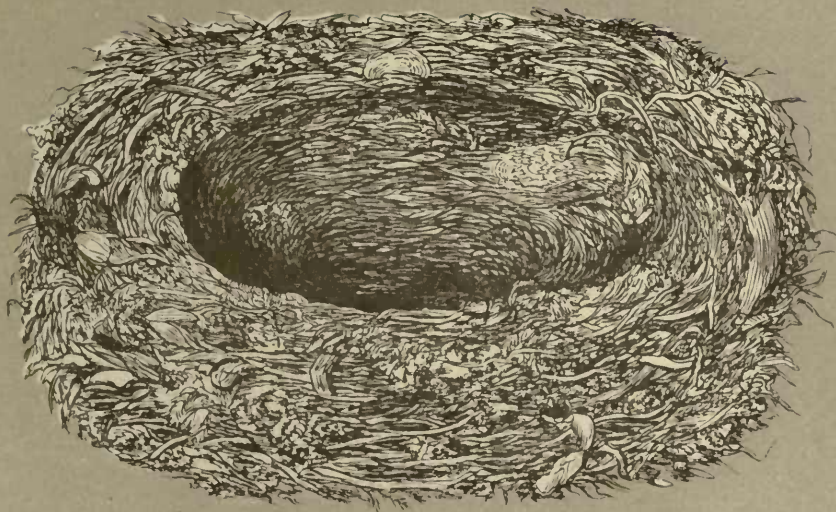
PLATE XXXVIII.

Muscicapa grisola, ... LINNÆUS.

NIDIFICATION commences immediately after the arrival of the birds, which is usually in May; they almost seem to have paired before their migration, or if not, at all events they do so at once when here.

The nest, which is built at the beginning of June, is composed of various materials, such as small twigs, catkins, and moss, lined with feathers, hair, down, and cobwebs. It is a neat structure, assorting in colour with the surrounding objects. The same situation is resorted to year after year, and scarce any attempt is made at concealment. A pair which built in the trellis-work close to the drawing-room window of a house I once resided in, not being disturbed, returned there three successive summers. Another pair have now for two seasons built in the same way, in the trellis-work over the drawing-room window of Nafferton Vicarage, in which this account of it is written. A favourite resort is such a place, or a tree trained against a wall, on account of the support afforded by it.

Another couple placed theirs in a tree immediately over



SPOTTED FLYCATCHER.

an entrance door, which, whenever it was opened, caused them to fly off; another pair on the angle of a lamp-post in Leeds; and another on the ornamental crown of one in London. Another pair placed theirs on the end of a garden rake; another in a cage hung up in a tree, the door having been left open; and one nest was built in a hot-house, which, when the thermometer rose, the bird used then to quit, returning again when it fell. Holes in trees are also built in, ledges of rocks, holes in walls, the exposed roots of trees over a bank, the side of a faggot stack, or a beam in an out-building, whence the provincial name "Beam Bird." One pair made their nest on the hinge of an out-house door, in a village where people were continually passing and repassing.

Mr. Clive L. Phillips has informed me of the curious fact of a nest of a pair of these birds from which two eggs had been taken by some one, having then had an egg laid in it by a Chaffinch, and two more by the birds themselves, after repairing the nest, both the species being then seen about the spot.

Two broods are rarely reared in a year, the first being hatched in June: the second, when produced, may be in consequence of the first nest having been destroyed.

The eggs, four or five in number, are greyish or greenish white, spotted with or clouded with rusty brown; in some the broad end is blotted with grey red. After the young have quitted the nest they are very sedulously attended by their parents.

ROLLER

GARRULOUS ROLLER.

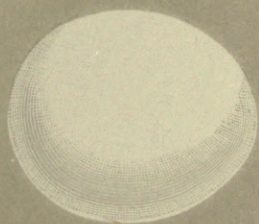
PLATE XXXIX—FIGURE I.

Coracias garrula, ... LINNÆUS.

THE Roller is a rare visitant to England, not breeding in this country.

The nest, composed of small fibres, straws, feathers, and hair, is built in the hollows of trees, but also, where trees are scarce, in ruined buildings, or in holes of banks. In the former case, the birch is said to be preferred—whence the German name of the “Birch Jay.” The same situation is resorted to again and again, if the birds have not been disturbed.

The eggs, of a rotund form, are from four or five to six or seven in number, and of a shining white, varying considerably in size, like those of the Bee-eater and Kingfisher. The male and female sit on them by turns, and they are hatched in about three weeks, during which time the latter is so devoted to her task, that she will frequently allow herself to be captured on the nest. The young are fed with insects and caterpillars, and the parents exhibit a strong attachment towards them.



ROLLER.
KINGFISHER.

XXXIX

KINGFISHER

KINGSFISHER.

PLATE XXXIX.—FIGURE II.

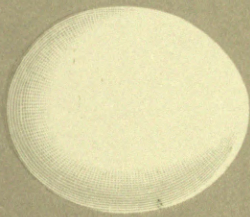
Alcedo ispida, ... LINNÆUS.

THE nest is placed two or three feet within a hole in a bank, that, for the most part, of a water-rat, which the bird enlarges and alters as need be. It is said also sometimes to hollow out one for itself, which slants upwards from the entrance. The same situation is perseveringly resorted to from year to year. Much discussion has taken place on the question whether the Kingfisher forms an artificial nest or not, the eggs being often found "on the cold ground," and often on a layer of fish bones. My theory has for some time been that no nest is made, but that the bird resorting to the same locality year after year, a conglomerate of bones is by degrees formed, on which the eggs being necessarily laid, a nominal nest is in such case found. Since forming this theory I see that it is borne out by other writers. One has been found in Cornwall, in May, 1817, which was composed of dried grass, lined with hairs and a few feathers; so at least says "C.," in the *Magazine of Natural History*, vol. iii. page 175. The nest has been found at a distance from water, in a hole in a bank

frequented by Sand Martins, and one is recorded in "Jesse's Gleanings in Natural History," as having been placed in the bank of a dry gravel pit, near Hampton Court; another has been found "in a hole on the margin of the sea, a quarter of a mile distant from a rivulet." The young remain in the nest until fully fledged, and able to fly. For a short time they then, perched on some neighbouring branch, receive their food from their parents, who both purvey for them, and whose approach is greeted with clamorous twittering, but they soon learn to fish for themselves.

The young, says Saunders, are known to have been out of the nest by March 11, and they have been found inside as late as July 24, so that two broods are probably produced in some seasons.

The eggs, six or seven in number, are transparent white, and readily distinguished by their rotund form.



BELTED KINGFISHER.

XL

BELTED KINGFISHER

GREAT BELTED KINGFISHER.

PLATE XL.

<i>Alcedo alcyon,</i>	.	.	.	.	LINNÆUS. WILSON.
<i>Ceryle alcyon,</i>	.	.	.	.	GRAY.

THE Belted Kingfisher is an American species, of which only two examples have occurred in Ireland, and these possibly had escaped from confinement.

The nest, composed of a few feathers and a little grass, is placed in a hole in the steep bank of a river, the excavation of the bird itself by means of its bill and claws, to the depth of one or two feet. The same situation is tenaciously revisited from year to year.

The eggs are five in number, and the bird has been known to go on laying, some of them having been from time to time removed, to the number of eighteen. The female sits in April. There seem to be two broods, of which the first is hatched in the end of May or the beginning of June. The old birds exhibit much solicitude for their young.

BEE-EATER

YELLOW-THROATED BEE-EATER—COMMON BEE-EATER—
GNAT-SNAPPER.

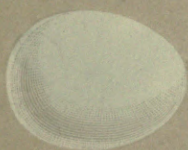
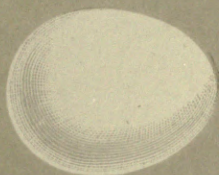
PLATE XLI.—FIGURE I.

Merops apiaster, ... LINNÆUS.

THE Bee-eater, of which some thirty examples only have been captured in Britain, is a summer visitant to the south of Europe.

The nest is placed in holes in banks, which latter are thus, as is only to be expected in the case of a Bee-eater, completely "honey-combed." The bird scoops out a hole by means of its bill and feet, to the depth of from one to two or even three yards, sufficiently large to admit its body, and as its legs are short, a wide orifice is not required; this passage is widened out at the end into a receptacle for the nests, which are laid on the bare earth.

The eggs, which are hatched in May, are glossy white, of a globular form, and from five to six or seven in number.



BEE-EATER.

HOOPOE.

XLI

HOOPOE

COMMON HOOPOE.

PLATE XLI.—FIGURES II. III.

Upupa epops, ... LINNÆUS.

THE Hoopoe is an occasional visitant, generally in the spring or autumn, to the south of England and to Ireland. It has been known to breed in Dorset, Hants, Sussex, Surrey, and Northamptonshire.

The nest, built in May, is placed in the hollow of a tree or a crevice of a wall, and is composed of dry stalks of grass, leaves, and feathers. In China Swinhoe states that the bird often breeds in the holes of exposed Chinese coffins, a proceeding which brings the bird into evil repute by the natives, who call it the "Coffin-bird."

The eggs vary from four to seven in number, and are of a pale bluish grey, faintly speckled with brown. They vary considerably to olive, lavender, grey, and stone colours.

After the young leave the nest, which usually reeks offensively with ordure, they assemble in the immediate vicinity, and are long and sedulously attended to by their parents.

CHOUGH

RED-LEGGED CROW—CORNISH CHOUGH—CORNISH DAW—
CORNWALL KAE—KILLIGREW—MARKET-JEW CROW—
CHAUK DAW—HERMIT CROW—RED-LEGGED JACKDAW—
CLIFF DAW—GESNER'S WOOD CROW.

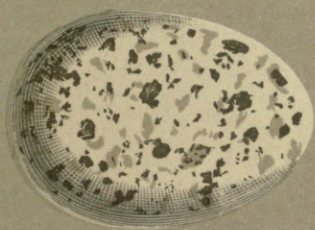
PLATE XLII.

<i>Pyrrhocorax graculus</i> ,	. . .	FLEMING. LINNÆUS.
<i>Corvus graculus</i> ,	. . .	PENNANT. MONTAGU.
<i>Fregilus graculus</i> ,	. . .	SELBY. JENYNS.

THE Chough at the present day is not known to breed eastward of Dorset, there being but a few small colonies in North Devon and Cornwall. There are also a few localities in Wales, and it is tolerably common in the Channel Islands.

The nest is made of sticks, and is lined with wool and hair. It is placed in the most inaccessible clefts and cavities of cliffs, or in old Church or other towers, generally in the neighbourhood of the sea. The Chough apparently pairs for life, and is to be seen in couples at all seasons. It nests in the latter part of April, using the long stems of heather and dry grass, and making a large structure in the hole in which it builds. It has been known to breed in confinement when placed in a large aviary.

The eggs, three to six in number, are dull white, spotted with grey and brown, most at the thicker end. Some are pale yellowish white, with large dark greenish brown spots.



CHOUGH.

XLII



RAVEN.

XLIII

RAVEN

CORBIE—CORBIE-CROW—GREAT CORBIE-CROW.

PLATE XLIII.

Corvus corax, ... LINNÆUS.

THE nesting of the Raven commences early, even in the coldest climates, here sometimes as soon as January; and the eggs have been taken in the middle of February. Incubation lasts about twenty days; the male and female both sit, and the former feeds and attends upon the latter.

The nest, which is large, and composed of sticks, cemented together with mud, and lined with roots, wool, fur, and such materials, is placed in various situations—in the clefts of the branches of tall trees, Church towers, caves, cliffs, and precipices. The mausoleum in the park of Castle Howard, the seat of Lord Carlisle, in Yorkshire, is still resorted to for that purpose.

“In the north,” writes Mr. Booth, “this species nests on ledges, and in crevices among the rugged and broken slabs of stone in the most inaccessible parts of the inland mountains, and also in wild rocky precipices overhanging the sea. On various parts of the coast a few stragglers may still be met with all round our islands. The nest itself is a large coarse structure, heather-stalks being freely used in its composition in the barren districts of the north, and the architects making use of whatever branches and

twigs come nearest in other localities. The interior is a mixture of sheep's wool, moss, hair, fine grass, and other soft materials."

The eggs are usually three to five, rarely as many as seven in number; they are of a bluish green colour, blotted with olive brown stains, which are sometimes so abundant as to give an almost uniform brown appearance. In some specimens, again, there are very few markings, which in some cases are yellowish brown and in others dark greenish brown. Occasionally the eggs are pale reddish white in the ground colour and spotted with rufous brown. In size, like those of the other birds of the group, they vary very considerably, and may be confounded with those of the Crow.

The young are generally fledged about the end of March or beginning of April. They are abroad by the middle of May even in the extreme north.



CROW.

XLIV

CROW

CARRION CROW—GOR CROW—GORE CROW—BLACK
NEB-FLESH CROW.

PLATE XLIV.

Corvus corone, ... LINNÆUS.

THE Carrion Crow seldom nests before the middle of April, unlike the Rook, which builds in March, and the Raven, which lays in February.

The nest is built in rocks or in trees, generally high up, and is made of sticks, firmly cemented with clay, and lined with roots, straw, wool, moss, fur, or hair, pulled for the purpose from the backs of animals. It is almost always lined with cow-hair, and is built of the materials just mentioned, or strong heath, if it can be had, in preference to sticks. It is also not unfrequently built in thorn bushes, where tall trees are not plentiful, and even sometimes in the lower parts of such, not more than a dozen feet from the ground, also occasionally, as in Holland, where trees are scarce, even on the ground itself. The same old nest will be used again and again if the birds are left undisturbed, and it is probable that they pair for life. They are very careful in approaching the nest, and do so by four or more separate flights, first to a tree near

the side of the wood parallel to the tree it is on, some three hundred yards off; then after a few moments to another a good way nearer, and so gradually edge in to the nest. In like manner they leave it in a very surreptitious manner on the least sign of any approach. It is usually concealed as much as may be, for instance, among the topmost branches of a tall fir tree. A pair built on the ground in one of the Fern Islands, and their nest was made of pieces of turf laid one upon another, and lined with wool, all brought from the mainland, four or five miles distant.

The eggs, four to six in number, usually five, are pale bluish green, spotted and speckled with grey and brown: some are pale blue undertinted with grey.

They are subject to a great amount of variation both in colour and size, some specimens being nearly spotless.



HOODED CROW.

XLV

HOODED CROW

ROYSTON CROW—GREY CROW—GREY-BACKED CROW—
SCARE-CROW—HOODY—DUN CROW—BUNTING CROW.

PLATE XLV.

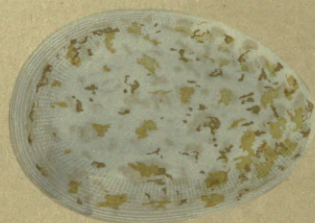
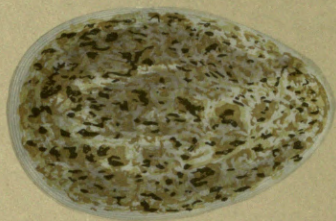
Corvus cornix, ... LINNÆUS.

THE nest, which is large, is sometimes placed in trees, but mostly in the clefts and chasms of rocks and hill sides, generally by the sea, and is composed of sticks, roots, stalks, or heather, and lined with wool, feathers, and hair. They have been known to build on the wood-work under a bridge, and on a mound of earth in a field; also, at other times on the ground, amongst heather, and on the roofs of deserted huts.

The eggs, from four to six in number, are of a green tint, mottled all over with greenish brown and pale purple grey. They, like those of the last species, vary much both in colour and size, and cannot, except when taken from the nest, be distinguished with certainty.

It will be seen by reference to Professor Thieneman's work, that that eminent Oologist describes the eggs of the Crow and the Hooded Crow together, which is in accordance with the opinion entertained by many, that both species are, so to speak, one. Certain it is that these two birds have not unfrequently been known to pair together in

the wild state; and, as Mr. Howard Saunders remarks, "to some extent the hybrids are fertile, and Mr Seebohm found every intermediate state of plumage between the two forms. A large case of specimens illustrating these gradations has been presented by him to the Natural History Museum at South Kensington."



ROOK.

XLVI

ROOK

PLATE XLVI.

Corvus frugilegus, ... LINNÆUS.

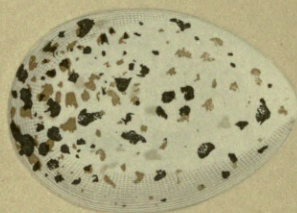
EARLY in March the nests of the previous year are begun to be repaired, and some new ones are necessarily built by the young of that date. The male diligently feeds the female, and occasionally takes her place on the eggs. The young are fledged by the end of May, or the beginning of June; and second broods sometimes produced as late as November; but possibly they should be considered rather as early than late ones.

The nest takes a week or ten days to build. The uproar then ceases, but while the hen birds are sitting, their mates keep up a considerable bustle. The structure is about two feet wide or somewhat more. It is composed of sticks, which are often broken off the trees for the purpose; these are cemented together with mud, and mixed with tufts of grass, and the nest is finally lined with roots and straw.

The eggs, four or five in number, are of a pale green ground colour, blotted over with darker and lighter patches of yellowish and greenish brown: they vary much, often clouded, dotted, and spotted, with greyish brown and light purple grey, sometimes so much so as nearly to conceal the ground colour.

Mr. Booth, whose practical remarks are always worthy of

consideration, makes the following singular remarks respecting this species:—"I am ignorant whether scientific naturalists can inform us with certainty as to the age at which the Rook commences to breed; no remarks on this subject can be found in any works I have examined. As far as I am able to judge from personal observations, it appears probable that this species does not arrive at maturity before the third year—*i.e.*, does not pair and nest till it has arrived at the age of two years."



JACKDAW.

XLVII

JACKDAW

DAW—KAE.

PLATE XLVII.

Corvus monedula, . . . LINNÆUS. GMELIN.

JACKDAWS build in cliffs, Church and other towers, rabbit burrows, the roofs of buildings, the holes of ruins, hollow trees, the sides of chalk-pits, and even in chimneys, despite of the smoke, as if conscious that it could not blacken their plumage: they inhabited the ruins of Stonehenge in Pennant's time, and may do so yet.

The nest is built of sticks, and is lined with wool, hair, grass, and other soft substances. Very large quantities of sticks are collected for the purpose, so as even to block up chimneys, and the spiral stairs of Church towers; the immense masses heaped together in the western towers of York Minster formed a most unfortunate kind of firewood for the last tremendous conflagration that occurred there. They used to build in the tower of my own Church, but when it was restored, wire net-work was placed in the belfry window, so as effectually to stop them there; one persevering pair, however, would not be even thus foiled, but actually brought a mass of sticks through one of the loopholes in the tower; and though their being naturally conveyed crosswise in their bills created an almost

insuperable difficulty, quantities falling down outside, yet it was marvellous to see the numbers which "by hook or by crook" they got in. The spiral nature of the staircase increased their difficulty, so much larger a quantity of materials being required to make a foundation.

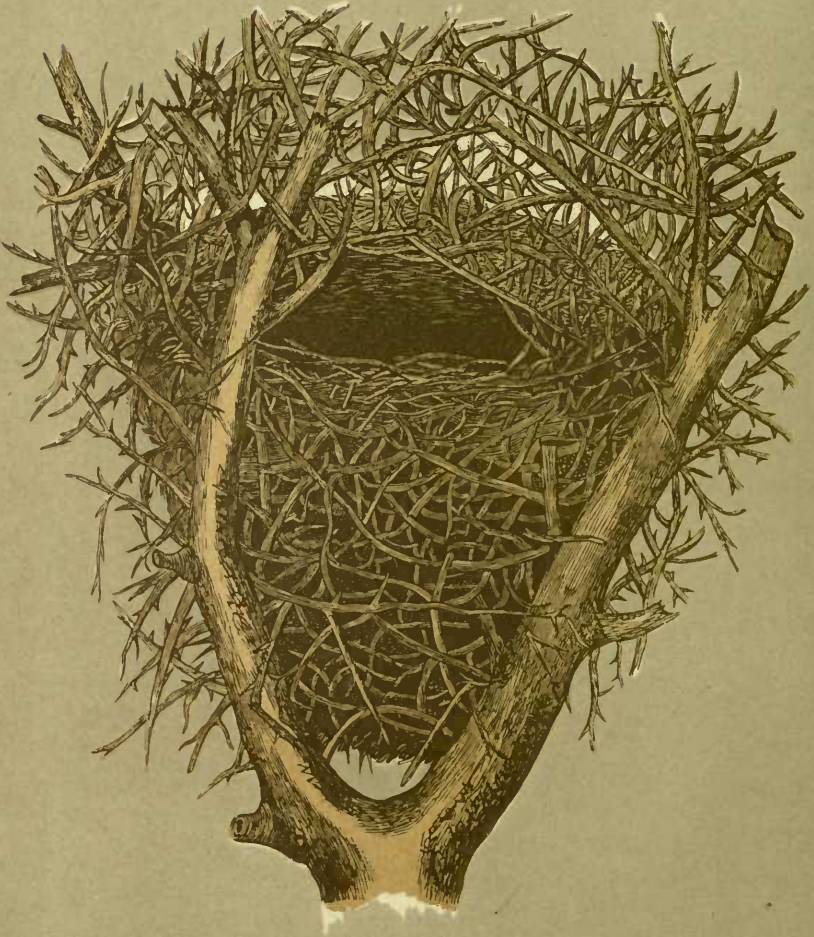
One instance is related by Mr. Alexander Hepburn, in the *Zoologist*, of the Jackdaw having built on the branches of trees; and Mr. G. B. Clarke, of Woburn, Bedfordshire, tells me that "some of the Jackdaws in Woburn Park, instead of building their nests as they had hitherto done in the holes of trees, have taken to placing them (1850) in some of the branches of the Scotch firs, the foundation being composed of small twigs, and the remainder of coarse grass or sedge, lined with fine dry grass."

At the Botanic Gardens at Cambridge great inconvenience was formerly caused by the appropriation of the labels by the Jackdaws; no less than eighteen dozen being discovered in one chimney.

The eggs, from four to six in number, are pale bluish white, spotted with large marks of grey and brown. They are never so beautifully marked as those of the allied species, the Rook, Crow, or Raven.

The eggs vary considerably, alike in size and shape.

The young are hatched in the end of May.



MAGPIE.

MAGPIE

COMMON MAGPIE—PIANET—MADGE.

PLATE XLVIII.

Pica caudata, . . . FLEMING. SELBY. GOULD.

NIDIFICATION begins early in the spring.

The nest, which is resorted to from year to year, is usually placed in the top of a tall tree, whether elm, oak, ash, beech, or willow, or hedge, occasionally in a lower one, if suitably protected. It is rather of an oblong shape, built of strong sticks and thorns, cemented together with mud, and lined with roots and grass; an aperture just sufficient to admit the bird is left on one side; the top is covered over.

I am informed by Mr. W. F. W. Bird that the Magpie builds in Kensington Gardens. Bishop Stanley has the following observations on this part of its history:—"Certain birds of similar habits will naturally, under peculiar circumstances, act very differently; we have an instance of this in the singular departure of the Magpie from its usual custom of building its nest. Everybody knows that where trees abound that which is loftiest, or most difficult of access, is chosen; but in parts where there are no trees, instead of retiring to high rocks, and choosing places not easily approached, they will take possession of bushes close to the

very doors of houses, particularly in those countries where, instead of being persecuted, they are preserved, from an opinion that it is unlucky to kill them. Accordingly, in Norway and Sweden, travellers are struck by their surprising numbers and tameness, their nests being built in some low bushy tree close to the cottage-doors, where they are never disturbed."

The Rev. I. Hall gives the following interesting account of a nest of these birds, which he met with in Scotland:—"On the road between Huntly and Portsoy I observed two Magpies hopping round a gooseberry bush in a small garden, near a poor-looking house, in a peculiar manner, and flying out of and into the bush. I stepped aside to see what they were doing, and found, from the poor man and his wife, that these Magpies, for several successive years, had built their nest and brought up their young in this bush; and that the foxes, cats, &c., might not interrupt them, they had not only barricaded the nest, but had encircled the bush with briars and thorns in a formidable manner."

The eggs are six or seven, rarely eight in number, are pale bluish green or yellowish white in ground colour, spotted all over with grey and greenish brown, more or less dark.



NUTCRACKER.

XLIX

NUTCRACKER

PLATE XLIX.

Nucifraga caryocatactes, ... LINNÆUS.

THE Nutcracker is an irregular visitant to the southern half of England, never resting in this country, and has little claim to be considered a British bird. Until of late years nothing was known of its nesting, which was for a long time erroneously described as taking place in holes in decayed trees.

The nests, which are commenced in March, are composed of sticks and twigs of trees freshly plucked and lined with grass, moss, and lichen. They are usually placed about twenty to twenty-five feet from the ground, on a branch against the stem. During the nesting time the birds are extremely shy and quiet, consequently their habitation escapes detection. It is said that the female alone incubates the eggs.

The eggs are three to five in number, of a greyish colour, spotted with lighter or darker shades of brown, which vary considerably in their distribution.

JAY

PLATE L.

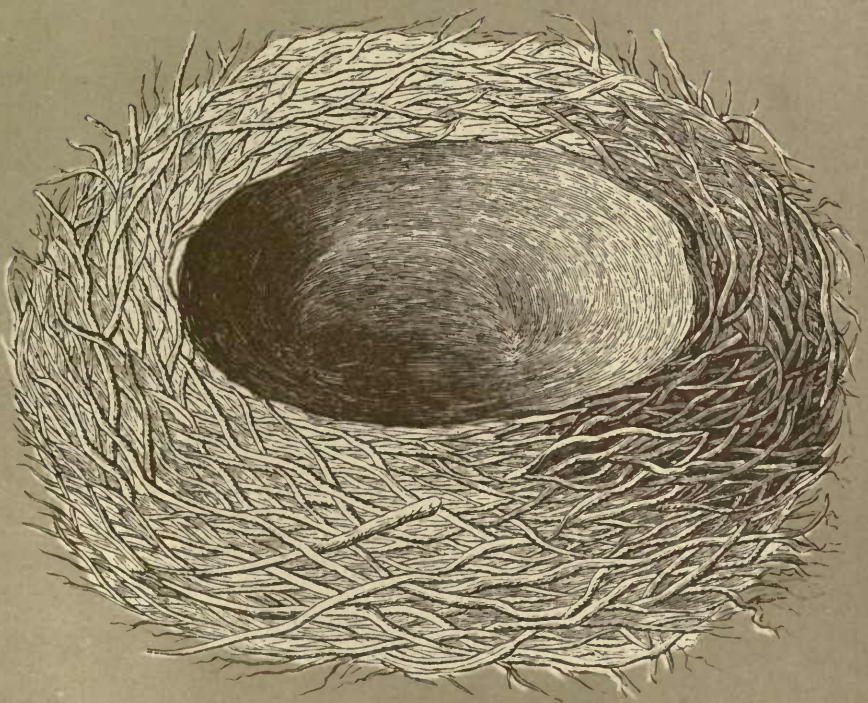
<i>Garrulus glandarius</i> ,	.	.	.	LINNÆUS.
<i>Corvus glandarius</i> ,	.	.	.	PENNANT. MONTAGU.

THE nest of the Jay, which is usually commenced in April, is placed in a tall bush or hedge, generally at a not greater elevation than about twenty or thirty feet from the ground, and sometimes less. It is of an open shape, formed of sticks and twigs, and well lined with small roots, grasses, and horse-hair. As shown in the characteristic plate, the nest of the Jay is very neatly made, being deeply cup-shaped and very bulky; the materials are nicely graduated from the outside to the interior. Some are much more cleverly constructed than others.

The eggs, which are usually laid in April or the beginning of May, are five or six in number, greenish grey or yellowish white, freckled all over with shades of light brown, and often zoned towards the larger end.

They vary occasionally both in size and in degree of polish, as well as in the ground colour.

The old birds are exceedingly valiant in defence of their nestlings. The late Mr. Briggs, as recorded in "Birds of Devon," states that "he found that the old birds had been feeding them on the small round galls that are so common on oak leaves." On June 17, 1857, he found



JAY.

L

a nest with nearly full-grown young ones built in the fork of an apple tree, with ivy growing round it, in an orchard at Derriford. The old birds were exceedingly bold, and, when he was up in the tree, appeared half inclined to fly at him. Their agitation and clamour were excessive; they flew round, chattering and menacing him, now cawing like a Rook, then mewing like a cat, and in their extreme agitation actually plucking off leaves and biting off pieces of dead twigs from neighbouring trees. Their solicitude pleased and amused him much (MS. Notes).

WAXWING

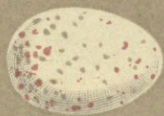
BOHEMIAN WAXWING—BOHEMIAN CHATTERER—EUROPEAN
CHATTERER—WAXEN CHATTERER.

PLATE LI.—FIGURE I.

<i>Ampelis garrulus</i> ,		LINNÆUS.
<i>Bombycilla garrula</i> ,		NAUMANN.

THE Waxwing, only an occasional visitor to the British Isles, breeds within the limits of the Arctic circle in both hemispheres—in holes among rocks, or in deep forests.

Before the researches of Mr. Wolley in 1856, the nest and eggs of the Waxwing were utterly unknown, and it was not until his fourth season of exploration that his efforts to discover a nest in Lapland were crowned with success. Since then eggs have been found by Mr. Dresser in an island in the Baltic, but it is an erratic bird, building in large numbers in a given locality in one season, and then neglecting it for some years. Mr. Wolley's own description of the nest is as follows:—"The Waxwing, as observed in Lapland, makes a good-sized and substantial nest, but without much indication of advanced art. It is of some depth, and regularly shaped, though built of rather intractable materials. As in those of many other birds in the Arctic forests, the main substance is of the kind of lichen commonly called tree-hair, which hangs so abundantly from the branches of almost every tree. This



WAXWING.
NUTHATCH.

lichen somewhat resembles a mass of delicate rootlets, or perhaps may be compared to coarse brown wool; but some of it is whitish, and in one nest there is a little of this mixed with the ordinary brown or black. This main substance of the nest is strengthened below by a platform of dead twigs, and higher up towards the interior by a greater or less amount of flowering stalks of grass, and occasionally pieces of equisetum. It is also interspersed with a little reindeer lichen, perhaps a sprig or two of green moss, and even some pieces of willow cotton. There may also be observed a little of the very fine silvery-looking fibre of grass leaves which probably have been reduced to that condition by long soaking in water. In one of the nests examined there were several oen-feathers of small birds as an apology for a lining.

The nest of the Waxwing is built on the branch of a tree, not near the bole, and rather, as one of the observers has said, standing up from the branch like a Fieldfare's or other Thrush's nest, than supported by twigs touching it at the sides, as the nests of many birds are supported. Of six nests, four were in small spruces, one in a good-sized Scotch fir, and one in a birch—all placed at a height of from six to twelve feet above the ground. The tree in several instances was unhealthy, thin, and scraggy in its branches, to which there hung a good deal of hair lichen; and the nest seems generally much exposed, though from its resemblance to the lichen hanging near, it might escape the eye."

The eggs are from five or six to seven in number, commonly of a pale purple grey, or delicate sea green, but often of a pale olive, spotted and specked with blots of deep brown, sometimes streaked also with a series of spots of greyish lilac.

NUTHATCH

NUTJOBBER—WOODCRACKER.

PLATE LI.—FIGURE II.

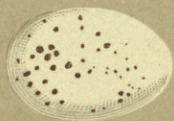
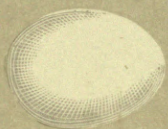
Sitta cæsia, ... PENNANT. MONTAGU.

THESE birds pair in March, and at once commence their nest, which is placed in some hole in a tree, frequently one previously made use of by a Woodpecker, at a height of from twenty to sixty feet from the ground. If the entrance be too large, they narrow it with clay, until it is of the right width. It is lined with dry leaves, the scales of fir cones, moss, bits of bark and wood, and sometimes a little grass.

There is a very singular nest in the British Museum, presented by Mr. F. Bond, which was placed in the side of a haystack, and measured thirteen inches by eight, the weight of the clay used in its formation being eleven pounds.

Incubation commences about the middle of April, and the female, while sitting, makes a hissing noise at any intruder. The young are fed principally with small caterpillars, and even the old birds feed on insects after the nutting season is over.

The eggs, from five to seven or eight in number, and of an oval form, vary considerably in marking; they are usually greyish white, spotted and sometimes much blotted with chestnut brown.



WRYNECK.
CREEPER.
WALL CREEPER.

WRYNECK

CUCKOO'S MATE—CUCKOO'S MAID—CUCKOO'S MESSENGER—
RINDING-BIRD — SNAKE-BIRD — TONGUE-BIRD — LONG-
TONGUE—EMMET-HUNTER.

PLATE LII.—FIGURE I.

Yunx torquilla, . . . LINNÆUS. LATHAM.

THE nest is placed in a hole of a tree, the mouldered wood of which seems to supply its chief or only lining, or rather layer. The apple tree is frequently chosen. The old nest of a Woodpecker or some other bird is often used, the Wryneck not excavating a hole for itself, though it fashions the cavity to suit itself. The nest is at various heights from the ground, and various depths from the surface of the tree, often close to a road side, in view of every passer-by, and at night the bird usually reposes in its nesting-place, being rather susceptible of cold.

The eggs, from six or seven to nine or ten in number, are pure white. When the young are hatched, the female bird is so much attached to them, that she may easily be taken while sitting on the eggs. The same spot is resorted to year after year, even after the birds have been much disturbed.

CREEPER

TREE CREEPER—COMMON CREEPER—TREE CLIMBER.

PLATE LII.—FIGURE II.

Certhia familiaris, . . . PENNANT. MONTAGU.

THE common Tree Creeper nests at the end of April, and a second brood is very generally reared the same year, but not, it seems to be thought, in the same nest.

The nest is composed of grass, straw, fibres of roots, and twigs, bits of bark, spiders' webs, and the cocoons of chrysalides, lined with feathers, and almost invariably of fine strips of the inside of the bark of the birch. It is placed either in a hole or some crevice of the bark of a tree, the willow, as most affording such as it requires, being preferred, or even between two stems, and has been found in the interstice afforded by two palings: a hole previously tenanted by a Titmouse or other small bird is sometimes resorted to. Sir William Jardine mentions one built in a peatstack; and the space behind the loose plaster of a shed is often used.

The eggs, eight or nine in the first brood, laid in April, and four or five in the second, are white, with a few red spots all over, or only at the thicker end. Both birds sit on them by turns.

WALL CREEPER

PLATE LII.—FIGURE III.

Tichodroma muraria, ... LINNÆUS.

THE Wall Creeper is an inhabitant of the mountain ranges of Southern Europe, and has only occurred two or three times in England.

The nest is made of moss and bits of straw, and grass, lined with feathers, hair, wool, and such like, and is placed in some crevice of a rock, &c.

The eggs are white, with minute spots of reddish brown.

BLACK WOODPECKER

GREAT BLACK WOODPECKER.

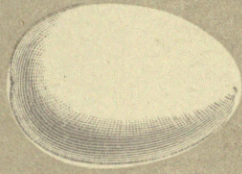
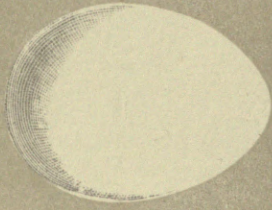
PLATE LIII.—FIGURE I.

Picus martius, ... PENNANT. MONTAGU.

IT is very doubtful whether this species has ever occurred in any part of Great Britain; it is not admitted as having any claim to be considered a British bird by the most recent authorities.

The birds commence building in the beginning of April, and the nest is bored in the hole of a tree, most frequently the fir, at other times the aspen, at a height, generally, of about fifty or sixty feet from the ground. The entrance to it is narrow, but beyond this, it widens in a downward direction to the width of about nine inches. The chips and splinters made by the bird in excavating its nursery frequently betray the locality, some of them being of considerable size, even several inches long.

The eggs, from three, it is said, to five or six in number, are white, smooth, and shining. The male is reported to take his turn on the nest. The young are fed with grubs and the larvæ of beetles and insects in the various stages, and are carefully guarded by their parents, who will hardly quit the nest if it be approached.



BLACK WOODPECKER.
GREEN WOODPECKER.

GREEN WOODPECKER

ECLE—LARGE GREEN WOODPECKER—WOODSPITE—HIGH
 HOE—HEW-HOLE—PICK-A-TREE—POPINJAY—RAIN-BIRD—
 RAIN-FOWL—WHITTLE—AWL-BIRD—YAPPINGAL—YAFFLE
 —YAFFER—NICK-A-PECKER.

PLATE LIII.—FIGURE II.

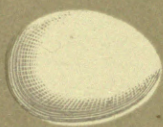
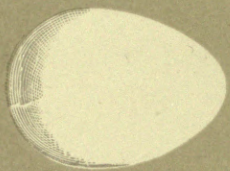
<i>Picus viridis,</i>		LINNÆUS.
<i>Geococcyx viridis,</i>		GRAY.

THE Green Woodpecker commences its preparations for building so early as April, and the old nest is frequently resorted to and repaired. The nest, if decayed wood dust may be called such, is placed at a height of fifteen or twenty feet from the ground, in a hole in a tree; the birds rarely carry away the chips and fragments of wood to a distance, and their presence often indicates the position of the nest, heaps of one or even one or two bushels piled up at the root of the tree being recorded by Booth. If necessary it perforates a hollow or else suits one to itself, with its trenchant bill, the strokes of the active worker being incessantly repeated: the sound of the "Woodpecker tapping the hollow beech tree" may be distinctly heard, it is said, at a distance of half a mile.

The eggs, four or five to six or eight in number, are pure glossy white in colour. In the *Zoologist* Professor Newton mentions his having met with five eggs of this bird

in a nest at Elveden, near Thetford, Norfolk, which were blotted and spotted with reddish brown and tawny yellow; and he speaks of having been informed of two other similar instances, one, or both of them, in the same neighbourhood.

The young are hatched in June. The parents are sedulously devoted to them.



GREAT SPOTTED WOODPECKER.
LESSER SPOTTED WOODPECKER.

GREAT SPOTTED WOODPECKER

WHITWALL — WITWALL — WOODWALL — WOODNACKER —
WOODPIE—FRENCH PIE—PIED WOODPECKER—GREATER
SPOTTED WOODPECKER—FRENCH WOODPECKER—GREAT
BLACK AND WHITE WOODPECKER.

PLATE LIV.—FIGURE I.

Picus major, ... PENNANT. MONTAGU.
Picus varius major, ... RAY.

ABOUT the end of March, the nidification of these birds commences.

No nest is formed; the eggs are laid usually about the middle of May on the dust that lodges at the bottom of the hole, sometimes as much as two feet from the orifice. Scotch fir seems to be preferred, but the oak and others are also made available if a pre-existing hole is adapted to their wants, or, if there be none such, a new one is scooped out of the most unsound part of the tree.

The eggs are four or five in number, white and glossy, and are hatched after an incubation of about a fortnight.

The figure is from an egg in the possession of Mr. Smith, of Yarmouth, which was laid by the bird in his pocket, as he was taking it home soon after its capture.

LESSER SPOTTED WOODPECKER

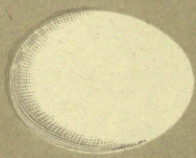
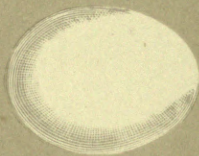
LEAST SPOTTED WOODPECKER—BARRED WOODPECKER—
LITTLE BLACK AND WHITE WOODPECKER—HICKWALL—
CRANK-BIRD.

PLATE LIV.—FIGURE II.

<i>Picus minor</i> ,	.	.	.	.	LINNÆUS.	PENNANT.
<i>Dendrowpus minor</i> ,	.	.	.	.	NEWTON.	

THE nest of the Lesser Spotted Woodpecker is placed at the bottom of a hole in a tree, often in the highest branches of poplars, but sometimes even as low as pollard willows; in some cases holes are used that were previously existing, these being adapted by the bird itself to its requirements. Sometimes more than one hole is either wholly or in part thus fashioned, though only one can be finally occupied.

The eggs, generally five in number, are white; they are hatched in fourteen days.



HAIRY WOODPECKER.
THREE-TOED WOODPECKER.

HAIRY WOODPECKER

PLATE LV.—FIGURE I.

Picus villosus, . . . LINNÆUS. GMELIN.

THE Hairy Woodpecker is a native of North America, which is said to have occurred once or twice in England. In the United States nidification begins in May, when a branch already hollow is pitched upon, or a fresh opening is made. "In the former case," says Wilson, "I have known his nest more than five feet distant from the mouth of the hole; and in the latter he digs first horizontally, if in the body of the tree, six or eight inches, and then downwards, obtusely, for twice that distance; carrying up the chips with his bill, and scraping them out with his feet. They also not unfrequently choose the orchard for breeding in, and even an old stake of the fence, which they excavate for this purpose."

The eggs are white, five or six in number, and are laid in June.

THREE-TOED WOODPECKER

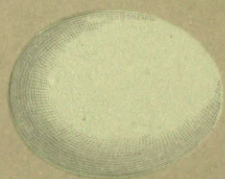
NORTHERN THREE-TOED WOODPECKER.

PLATE LV.—FIGURE II.

<i>Picus tridactylus</i> , ...	LINNÆUS.
<i>Picoides tridactylus</i> , ...	LACEPEDE.

THE occurrence of the Three-toed Woodpecker in Britain, which was recorded by Donovan in his "British Birds," has not been substantiated. The species inhabits Scandinavia and the mountainous parts of Central Europe. Although only three-toed, its habits do not differ widely from those of its congeners.

A hole in a pine tree is the favourite receptacle for its eggs, and these, four or five in number, are of a brilliant white.



YELLOW-BILLED CUCKOO.

LVI

YELLOW-BILLED CUCKOO

AMERICAN YELLOW-BILLED CUCKOO—VIRGINIAN CUCKOO—
CAROLINA CUCKOO—COW-BIRD—RAIN-CROW.

PLATE LVI.

<i>Cuculus americanus</i> ,	. . .	LINNÆUS.
<i>Coccyzus americanus</i> ,	. . .	LINNÆUS. JENYNS.

THE Yellow-billed American Cuckoo has occurred about five times in the British Isles, but Mr. Howard Saunders doubts whether these examples crossed the Atlantic without human assistance. Unlike our Cuckoo, it rears its own young.

The nest is commenced about the end of the first week in May. Dresser says the nest is a slight structure resembling that of the dove, and built of dry twigs, so as to form a scanty platform lined with a few grass bents and straws. It is placed on the branch of a tree, and is made of small sticks and twigs, intermixed with weeds and blossoms; Meyer says that it is made of roots and wool.

The eggs, three, four, or five, generally four in number, are of a uniform delicate blue colour, and of a duly proportionate size. As if, however, every kind of Cuckoo must have something peculiar about it, the one before us does not begin to hatch its eggs when all have been laid, but commences at once with the first, the necessary consequence of

which is that each successive egg is hatched later than its predecessor; and thus the family of Cuckoos exhibit various stages of advancement while yet in the nest.

This species is said by Audubon occasionally to lay its eggs in the nest of another bird.



CUCKOO.

LVII

CUCKOO

COMMON CUCKOO—GOWK.

PLATE LVII.

<i>Cuculus canorus</i> ,	.	.	.	LINNÆUS.	MONTAGU.
<i>Cuculus hepaticus</i> ,	.	.	.	LATHAM.	

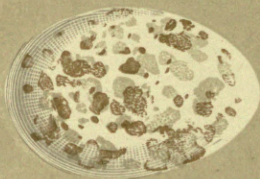
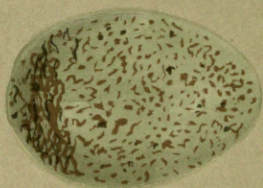
THIS species deposits its eggs in the nest of some other small bird, for which they are not too large, being singularly small in proportion to its own size. The female is now known to lay her eggs on the ground, and to carry them to the nest of the bird she designs for the foster parent in her bill.

The eggs are not laid until the middle of May, and they require about a fortnight's incubation. They are usually of a dusky greenish or reddish grey colour, mottled over with a darker shade. Montagu found one so late as the 26th of June; and Mr. Jesse records that a young Cuckoo, which had only just left the nest of a Wagtail, was found in Hampton Court Park on the 18th of August 1832. The young birds are not able to fly in less than five or six weeks.

Occasionally two or even three Cuckoo's eggs are found in the same nest. It is known, however, that the Cuckoo lays several eggs in different nests, probably from five to eight, at intervals of seven or eight days, during the season.

Mr. M. Capper, of Shirley, informs me that he found on Shirley Common, in the nest of a Meadow Pipit, two Cuckoo's eggs of dissimilar colouring and size, and therefore probably deposited by two different birds.

The eggs vary considerably in colour and markings, and generally resemble those of the bird in whose nest they are deposited. This is almost invariably an insect-eating species. In our own country the nests of Pipits and Wagtails are generally selected, although the nest of the Hedge Sparrow is often chosen as the nursery for a young Cuckoo.



GREAT SPOTTED CUCKOO.
RED-NECKED NIGHTJAR.

GREAT SPOTTED CUCKOO

PLATE LVII.*—FIGURE I.

Cuculus glandarius, . . . LATHAM. GOULD.

THIS species, which is a native of Southern and South-western Europe and North Africa, has only once occurred in Ireland.

The egg is pale green, streaked and spotted with russet and dull lilac.

Howard Saunders says it is common in Spain, where it deposits its eggs in the nest of the Magpie, and that he has found as many as four of its eggs with six of the Magpie's in one nest.

RED-NECKED NIGHTJAR

RUSSET-NECKED NIGHTJAR.

PLATE LVII.—FIGURE II.

<i>Caprimulgus ruficollis,</i>	.	.	.	.	TEMMINCK.
<i>Scotornis trimaculatus,</i>	.	.	.	.	SWAINSON.

THE Red-necked Nightjar has only once been recorded as occurring in Great Britain; it breeds in the south of Europe.

The nest is placed on the ground in a hollow, or under some shrub. The eggs, which resemble those of the Nightjar, are two in number.



NIGHTJAR.

LVIII

NIGHTJAR

GOAT-SUCKER — DOR-HAWK — NIGHT-HAWK — FERN-OWL —
WHEEL-BIRD — CHURN-OWL — JAR-OWL — PUCKERIDGE.

PLATE LVIII.

Caprimulgus Europæus, . . . PENNANT. MONTAGU.

Caprimulgus punctatus, . . . MEYER.

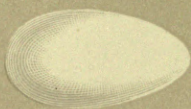
THE Nightjar seldom arrives before the middle of May.

The nest, if a few chance leaves in a hollow of the ground can be so called, is found in the open rides and walks in woods, as also in their bordering neighbourhood, in moors and barren places, among heath, grass, or fern, from the latter of which one of its secondary names is derived. It is frequently placed at the foot of a tree or a bush.

The eggs are generally two in number, but three have been known in two instances: in one by Mr. Eddison, and in the other by the Rev. J. Pemberton Bartlett, namely, in the latter case, two young birds and an egg. They are very beautiful, and of nearly a perfect oval shape, the ground colour being white, which is most elegantly clouded and streaked with bluish grey and yellowish brown. The eggs are laid in the beginning, and the young are hatched in the middle, of July. Saunders, however, records eggs being found recently laid as late as August, but as only one

brood appears to be usually reared each season, it is probable that in such cases the first eggs had been taken or destroyed.

The eggs vary considerably, the creamy white colour being marbled to a greater or less extent in different specimens.



SWIFT.

LIX

SWIFT

COMMON SWIFT—BLACK MARTIN—SCREECH MARTIN—
SCREECHER—SCREAMER—DEVILING.

PLATE LIX.

Cypselus apus, ... LINNÆUS.

THE nest is generally placed in holes about steeples of churches, and the old walls of lofty towers, as also under the eaves of cottages and barns, crevices under window-sills, and even in hollow trees; under the arches of bridges, in the sides of cliffs and of chalk-pits. It is roughly formed of straws, wool, grasses, hair, feathers, and such like materials, agglutinated together with the saliva of the birds. These materials are picked up with great dexterity while the bird is on the wing, or purloined from or found in the nest of Sparrows, Martins, or even Starlings, which the Swifts occasionally appropriate to themselves.

The eggs are laid early in June, the birds returning to the same nest many years in succession.

The number of eggs is two, but Mr. J. J. Briggs recorded four at Melbourne, in Derbyshire. This is not a solitary instance of four eggs being found in the nest, but they are probably the produce of two females. The eggs are rough, white, long and narrow. One brood is raised during the season.

ALPINE SWIFT

WHITE-BELLIED SWIFT.

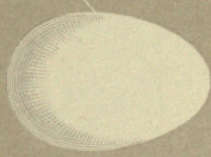
PLATE LX.

<i>Cypselus melba</i> , ...	LINNÆUS.
<i>Cypselus alpinus</i> , ...	SELBY. JENYNS.

THE Alpine Swift very rarely occurs in England, being found throughout the centre and south of Europe in summer, and wintering in the south of Africa. It builds its nest among high rocks in mountainous districts, and in holes in the steeples of cathedrals and churches, the old situation being often again resorted to.

The nest is composed of straw, grass, leaves, wool, feathers, and moss, cemented together with the mucous saliva, which gives it a varnished appearance. The nest is very shallow, and appears sometimes to be occupied by two pairs of birds, as four eggs are sometimes contained in it.

The eggs, two in number, and of an elongated form, are white: they are laid towards the end of May, and are hatched by the middle of June. The young, when first able to fly, still follow their parents, by whom they are for some time supplied with food on the wing.



ALPINE SWIFT.

LX



SWALLOW.

LXI

SWALLOW

CHIMNEY SWALLOW—RED-FRONTED SWALLOW—
COMMON SWALLOW.

PLATE LXI.

<i>Hirundo rustica</i> ,	.	.	.	LINNÆUS. PENNANT.
<i>Hirundo domestica</i> ,	.	.	.	RAY. BRISSON.

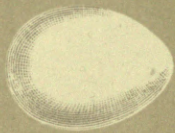
IN the month of May, about a month after the arrival of the bird, the nest is commenced; and, as imported by one of its trivial names, the inside of a chimney is a common selection, and some angle or corner a few feet down is taken advantage of for the support that it affords.

The nest, which is open at the top, is formed of moist earth, which the bird collects bit by bit in its bill, from the side of a pond or stream, or the middle of a road, as may often be seen. It is moulded into shape, intermixed with straw and grass, and is finally lined with feathers, or such like soft materials.

Mr. Seeböhm carefully describes the varied forms of the nests. He says: "The nest of the Swallow is generally placed on the joist which supports the rafters of a barn or other outhouse, a few inches below the tiles or slates which form the roof. In this position it rests upon the horizontal surface of the joist, and is a ring of mud lined with dry grass and a few feathers. By far the greater number of Swallows' nests

which I have seen in this country have been built in this position and on this model. Other localities are also chosen in England. It often breeds in a chimney, and occasionally down a well or an old mine, or under a bridge or a doorway, in all of which situations the nest is generally built on the continental model. To make the nest strong, the Swallow mixes with the mud of which the walls are composed dry grass, straw, or hair. The mud-made shell or cup is neatly lined with dry grass and a few feathers, generally obtained as the bird flies through the air. In shape the nest is very shallow, and, unlike the House Martin's, is always open, leaving the sitting bird exposed to view. Some nests are much more carefully made than others, depending to a great extent on the peculiarities of the chosen site."

The eggs are usually from four to six in number, white, much speckled over with ash-colour, and dark red, or brown and rufous. They vary considerably in marking, but the ground colour is always pure white.



PURPLE MARTIN.

LXII

PURPLE MARTIN

AMERICAN PURPLE MARTIN.

PLATE LXII.

<i>Hirundo purpurea</i> ,	.	.	.	.	.	LINNÆUS.
<i>Progne purpurea</i> ,	.	.	.	.	.	NEWTON.

THE Purple Martin is a summer visitor to North America. Only one example has occurred in England. It naturally breeds in trees, but being welcomed on its arrival in the States, "Martin boxes" are frequently set up for it in gardens and near houses.

The nest is made of leaves, hay, straw, or feathers, in considerable quantity.

The eggs are about four in number, small for the size of the bird, and pure white, without any spots. The first brood appears in May, the second late in July. Both the male and female birds assist in the work of incubation; the former relieving and attending on the latter with much careful tenderness.

MARTIN

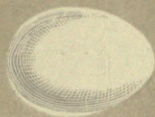
HOUSE MARTIN—MARTIN—WINDOW SWALLOW

PLATE LXIII.—FIGURE I.

<i>Hirundo urbana</i> ,	.	.	.	PENNANT.	MONTAGU.
<i>Chelidon urbana</i> ,	.	.	.	NEWTON.	

THE nest of the Martin, which is about six inches in width, and about half an inch thick above and an inch below, is generally built under the eaves of a house, or the corner of a window, or the arch of a bridge or gateway, but also frequently on the sides of cliffs. Two were built on the bough of an elm over a pond at Leasingham Hall, near Sleaford, Mrs. Fielden's place, in 1881. Of these I heard from the Rev. A. Myers, Rector of Ruskington, who saw them himself. It is of a hemispheric form, closed all round except a small entrance, usually on the most sheltered side, and just large enough for the entrance of the birds, and is lined inside with a little hay or grass and feathers. The interior is smooth, the outside rough.

The eggs are four or five in number, smooth and white, or pink white. Professor Thieneman figures one remarkable variety which is dotted over with small distinct pale yellowish red spots. They vary in size and shade. Incubation lasts twelve or thirteen days. At first the parent birds



MARTIN.
SAND MARTIN.

LXIII

enter the nest each time to feed the young ones, but by and by the latter may be seen anticipating their arrival by thrusting out their heads at the entrance, in expectation of the meal which they there receive, the old bird holding on to the nest outside; when able to fly they are fed on the wing.

The same nest is resorted to from year to year. Thus the Rev. Gilbert White says:—"July 6th, 1783, some young Martins came out of the nest over the garden door. This nest was built in 1777, and has been used ever since." The young birds of one year often add another the following to "The Row" of nests which ornament the eaves where their parents have built; and sometimes the birds will form a continuous line of the mud they build with along the wall, without any apparent or discernible motive, for there it remains, no use being made of it. The mud they pick up for building is tempered and cemented by the saliva, and becomes so adhesive that it will adhere firmly to glass.

In one instance it was especially curious that through the nest ran a bell wire, which, although often pulled by the family residing in the house, did not injure the nest, nor incommode its inmates. In two instances they have been known by the Rev. A. Matthews to make a nest by plastering up a hole in the wall of a barn, leaving a small entrance at one corner; these nests were occupied for several seasons.

SAND MARTIN

BANK MARTIN.

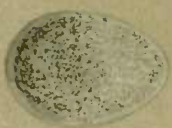
PLATE LXIII.—FIGURE II.

Hirundo riparia, ... PENNANT. MONTAGU.

THE nest of the Sand Martin, as indicated by its name, is placed in the straight banks of rivers, cliffs of the sea-shore, sand-pits, and such other like situations as are sufficiently soft for the bird to perforate.

The bird hollows out for itself a way to its intended nesting-place to the depth of from two to three, and even nearly four feet. The galleries slant upwards and are larger at the ends. These "excavators" complete their work, though they are such "feeble folk," in about a fortnight. The same hole is resorted to from year to year, or, if it has fallen away, another is hollowed out in the same neighbourhood. The first eggs are laid late in May, and a second brood is usually hatched and flying by the middle of August.

The eggs are from four to six in number, and white. They are hatched after an incubation of twelve or thirteen days.



PIED WAGTAIL.
WHITE WAGTAIL.

PIED WAGTAIL

WATER WAGTAIL—WINTER WAGTAIL—BLACK AND WHITE
WAGTAIL—PEGGY WASH-DISH—DISH-WASHER.

PLATE LXIV.—FIGURE I.

<i>Motacilla yarrellii</i> ,	.	.	.	.	.	GOULD.
<i>Motacilla lugubris</i> ,	.	.	.	.	.	TEMMINCK.

THE nest is commenced in the beginning or middle of April, according to the season. It is placed in situations of very opposite kinds, though never at any very great height, in a hole of a stone wall, the side of a bridge, in a hollow of a tree, on a heap of stones, the bank of a streamlet or river, and even the burrow of a Sand Martin, the side of a stack of hay, peat, or wood, a stony or grassy bank, the stump of a tree, a mud wall, a quarry, or on the grass, sometimes also in a low shrub or bush. One in the garden of Nunburnholme Rectory was built in a corner of the summer-house, in the midst of encircling branches of roses—a thorough nook, altogether a most clever and picturesque situation. It is almost always thus supported against something—a ledge of rock, bank, building, or wall. A nest has been built in an old flower-pot, and another in a rat-trap. Meyer has known one in the middle of a turnip-field.

It is somewhere about five inches wide externally, by

about three and a half internally, and is composed of stems of grass, leaves, small roots, twigs, and moss, lined with wool, hair, thistledown, the finer grasses, or feathers, or any other such soft substances, all somewhat rudely, or rather loosely, put together. The same situation is resorted to year after year for a long time, the nest being often placed either in or very near to the same spot.

The eggs, four to six in number, of an elongated oval form, are light grey, or greyish or blueish white, sometimes tinged with yellowish or greenish, spotted all over with grey and brown. They vary, however, very considerably both in size and colour.

WHITE WAGTAIL

GREY-AND-WHITE WAGTAIL.

PLATE LXIV.—FIGURE II.

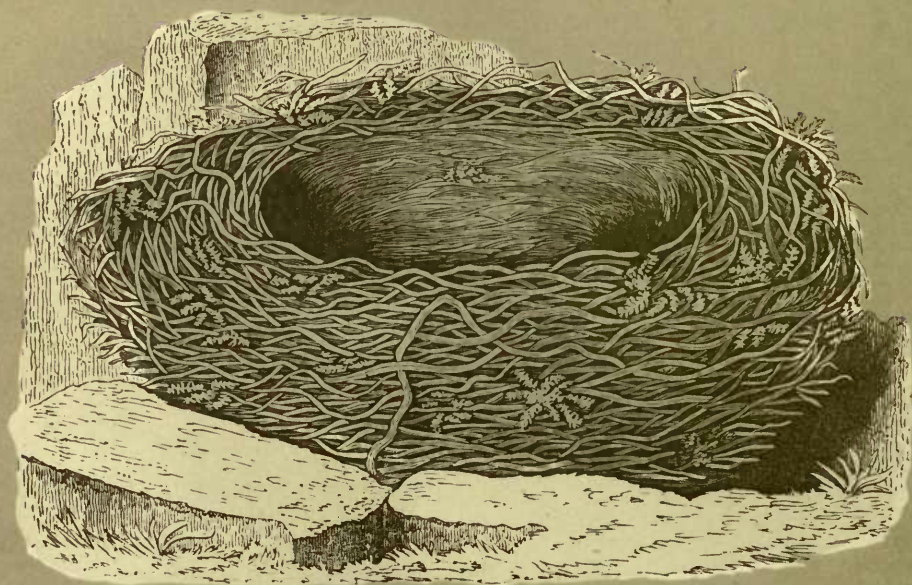
Motacilla alba, ... LINNÆUS. GMELIN.

A RARE straggler from the Continent to the South of England. The nest is generally placed in a hole of a bank or of a tree, higher or lower indifferently; sometimes under the eaves of a thatched house, or between the timbers of a roof, among felled wood, or roots that the earth may have fallen away from, a meadow, under a bridge, or in a heap of stones. Both birds assist in its formation, bringing together for the purpose small sticks and twigs, moss, grass, straws, leaves, and roots, and lining the whole with wool and hair.

The eggs, which have little or no natural polish on them, and are four or five, six or seven in number, are bluish white in colour, speckled all over with minute grey specks, and spotted with larger spots of brown, principally at the larger end, occasionally in the way of an irregular belt.

The eggs of this species vary very considerably, some are greenish blue in ground colour, others have the ground colour almost pure white, spotted at the larger end, whilst a third set are spotted over the entire surface. It is not easy

always to distinguish the eggs of this species from those of the Pied Wagtail, and the two birds themselves are very often confused. The White Wagtail appears to be becoming more plentiful in the eastern counties than formerly. It generally rears two broods in the year.



GREY WAGTAIL.

GREY WAGTAIL

WINTER WAGTAIL—YELLOW WAGTAIL.

PLATE LXV.

<i>Motacilla melanocephala</i> , ...	PALLAS.
<i>Motacilla sulphurea</i> , ...	BECHSTEIN.

THIS species, though called the Grey Wagtail, is readily distinguished by its greenish yellow tints and exceedingly long tail. In England it breeds readily in the south-western counties, and in the British Islands, generally where rapid streams are found.

The nest is generally placed on the ground, among grass or stones, in the hollow of a bank or rock, usually near the border of a stream, but not always, for it has sometimes been met with at a distance from water. One pair has been known to build in a spout, and the following year on a shelf in an outhouse, to which a broken pane of glass gave them ingress; and again, on the window-sill of a dairy, near the previous one. Another pair built their nest between the "switches" of a railway, within two or three inches of every train that passed. It is formed of small fibres and roots, moss and grass, and is lined with wool, hair, or feathers.

The eggs are from five to six, or even eight in number, greyish or yellowish white, mottled with light brown and grey. They vary in depth of colouring, some being nearly cream white, and others nearly pale yellowish brown: they are of a short oval shape.



GREY HEADED WAGTAIL
YELLOW WAGTAIL

GREY-HEADED WAGTAIL

BLUE-HEADED WAGTAIL—YELLOW WAGTAIL—BLUE-HEADED
YELLOW WAGTAIL

PLATE LXVI.—FIGURE I.

<i>Motacilla neglecta</i> ,	. . .	GOULD. JENYNS.
<i>Motacilla flava</i> ,	. . .	LINNÆUS. TEMMINCK.
<i>Budytes flava</i> ,	. . .	MACGILLIVRAY.

AN accidental straggler to the southern and eastern counties of England.

The nest is generally placed on the ground in holes or hollows, especially in moist places in fields and meadows. It is formed of grass, moss, or heath, lined with finer portions of the former materials, and hair.

The Grey-headed Wagtail is rather a late breeder, the eggs being seldom laid before the end of May or beginning of June, so it probably has but one brood during the season.

The eggs are four to six in number, whitish in colour, mottled nearly all over with yellowish brown and grey.

YELLOW WAGTAIL

RAY'S WAGTAIL

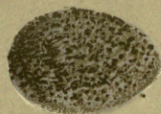
PLATE LXVI.—FIGURE II.

Motacilla raii, ... BONAPARTE.

THE nest of this regular summer visitor to Great Britain is placed in fields on the ground, is compacted of dry stalks and fibres, lined with hair, or wool, or finer portions of the same, the materials varying considerably even in the same locality. Hewitson mentions his having found one in the hole of a wall near water, and another upon a ledge of earth on the bank of a river. Meyer describes one made of moss, with a few tufts of grass outside, and a few horse-hairs within.

The eggs, four or five or six in number, are greyish white, thickly mottled or sprinkled all over with a darker shade, in some very obscurely, of grey, or pale rufous, or yellowish brown; other specimens are nearly pale dull yellow, slightly marbled over. Many specimens are marked with dark black hair-like streaks on the larger end. They are of a rather long oval form.

The Yellow Wagtail is an early nester, building its nest in the latter part of April, so that the young can fly by the end of May, and a second brood is often reared during the season.



TAWNY PIPIT.
RICHARD'S PIPIT.
WATER PIPIT.

RICHARD'S PIPIT

PLATE LXVII.—FIGURE II.

Anthus ricardi, ... VIEILLOT.

THIS species, an occasional straggler to England during the autumn migration, builds its nest in a tuft of grass on the ground. It is composed of strong stems, moss, and hair.

The nest is usually made in a slight hollow such as the footprint of a cow or a horse. They are exceedingly common in many parts of central Siberia, but have never been known in this country.

The eggs, four or five in number, are described as being of a reddish white ground colour, speckled with darker red and light brown.

Professor Thieneman figures two, both much resembling each other, but one of a slightly darker shade.

In one the ground colour seems to be pale bluish grey, mottled all over with pale dull yellowish white, and dull white.

In the other, which is marked in a similar manner, the yellowish colour more predominates.

TAWNY PIPIT

TAWNY LARK.

PLATE LXVII.—FIGURE I.

<i>Anthus campestris</i> ,	.	.	.	.	.	LINNÆUS.
<i>Alauda campestris</i> ,	.	.	.	.	.	BRISSON.
<i>Alauda mosellana</i> ,	.	.	.	.	.	GMELIN.

THE nest of this occasional straggler to the south coast is found on the ground, in some slight hollow under the shelter of a stone, clod of earth, or bush, sometimes, in the mountains, in the crevice of a rock, or in a tuft of grass. It is composed of blades of grass and moss, and is lined with hair and fine roots. The young quit the nest before they are able to fly, hiding themselves in the corn, grass, or brushwood.

It is singular that, although breeding freely in the North of France and Holland, it has not been known to nest in this country.

The eggs, from four to six in number, are very variable, and in general colour yellowish white, greyish, or greenish, covered with spots more or less thickly of greyish russet brown, or russet green, and sometimes finely spotted, greyish or greenish red.

WATER PIPIT

ALPINE PIPIT.

PLATE LXVII.—FIGURE III.

<i>Anthus spipoletta</i> ,	.	.	.	.	.	NEWTON.
<i>Alauda spinoletta</i> ,	.	.	.	.	.	LINNÆUS.

THE Water Pipit has only occurred a few times in Sussex, and has never been known to nest in this country. The name by which it has been generally known, *A. spinoletta*, is due to a misprint, *spipoletta* being the Italian name for any Pipit.

The nest is built in moss, or other herbage, and under the shelter of some stone or chink in a rock. It is made of blades of grass, sticks, stems, wool, and moss, interwoven together, and lined with hair and grasses. It is said to have two broods in the year.

The eggs, which are laid at the end of May, are five or six in number, of a brown, grey, or greenish tint, some with a circlet of spots or hair-streaks at the thicker end. One had a light grey ground, covered all over with olive-brown spots and dark grey dots. In another the ground colour is inclined to reddish, with a few dark grey spots or dots.

MEADOW PIPIT

TITLARK—PIPIT—TITLING—MEADOW TITLING—MOSS
CREEPER—LING BIRD—MEADOW LARK.

PLATE LXVIII.

<i>Anthus pratensis</i> ,	.	.	.	.	.	NEWTON.
<i>Alauda pratensis</i> ,	.	.	.	.	.	LINNÆUS.

THE Titlark, as it is generally called, is the smallest and most common bird of the group, abounding alike on pastures and moors. Its nest, which is rather bulky, is placed either on or close to the ground, often in marshy places, among grass, or in a tuft of heather, and under the branch of a very low bush, a bank, or a wall of turf, and is frequently much sunk in the ground, so as to escape the eye. It is neatly composed of grass, or sometimes fibrous roots, the finer portions constituting the lining, with occasionally a little moss and hair, and is often carefully concealed.

The eggs are laid about the middle of April, and the young are abroad by the end of May. A second brood is often produced about the middle of July.

The eggs, from four to six in number, but commonly five, are of a pale whitish grey, sometimes of a greenish or bluish tint thickly mottled with different shades of brown, especially near the larger end, the spots and specks sometimes



MEADOW PIPIT.

LXVIII

quite covering the ground colour. They vary much in depth of colouring, some being a good deal darker than others; hardly any two sets are exactly alike in this respect.

One fine variety, figured by Professor Thieneman in his beautiful work, is wholly of a fine dark rich brown, slightly variegated by being here and there a trifle darker or lighter.

RED-THROATED PIPIT

PLATE LXIX.

Anthus cervinus, ... PALLAS.

THE only claim of the Red-throated Pipit to be considered as a British bird is the occurrence of one individual which was said to have been shot in Shetland, and two others which have been obtained in Kent. It inhabits the Arctic Circle in summer, and migrates into the tropics in winter.

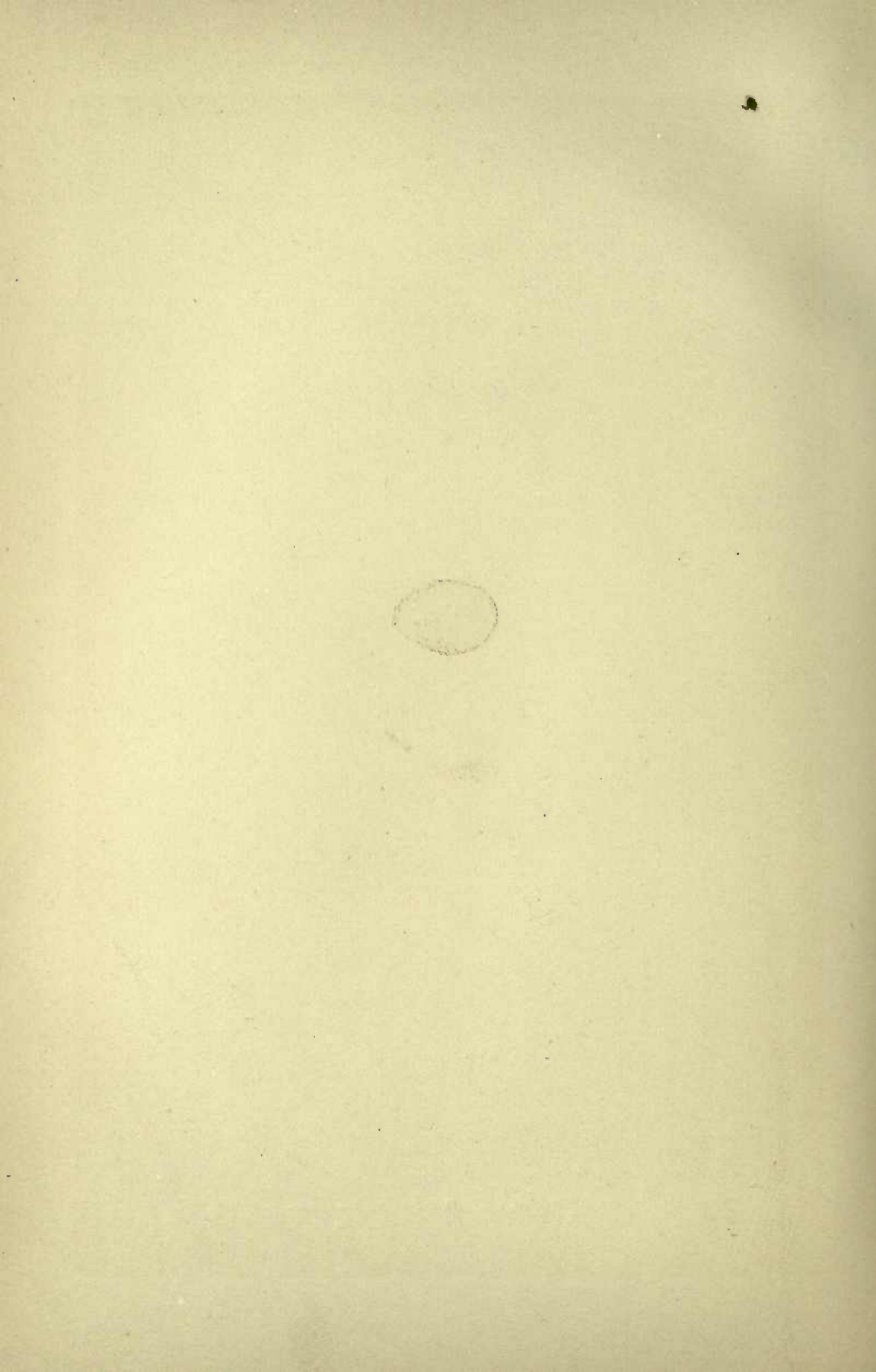
The nest is built with dry grass in the tussocks of the bogs or *tundras* of the Arctic Circle, and contains usually four or five eggs, of a mahogany colour, covered all over with darker markings, more or less confluent.

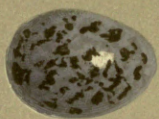
The breeding seldom commences sufficiently early for more than one brood to be reared during the season.



RED THROATED PIPIT.

LXIX





TREE PIPIT.

LXX

TREE PIPIT

PIPIT LARK—FIELD TITLING—FIELD LARK—LESSER FIELD
LARK — TREE LARK — GRASSHOPPER LARK — LESSER
CRESTED LARK—MEADOW LARK—SHORT-HEELED FIELD
LARK.

PLATE LXX.

<i>Anthus arboreus,</i>	. . .	SEEBOHM.
<i>Alauda trivialis,</i>	. . .	PENNANT. MONTAGU.

THE Tree Pipit is a migratory bird, arriving in England in April. Its nest is placed on the ground, in woods and plantations, under the shelter or secrecy of a small shrub, or tuft of herbage. It is formed of small roots and grass, with occasionally a little moss, and is lined with a few hairs. It measures about three inches across, and about an inch in thickness of construction.

The eggs are four to five or six in number, are generally greyish white in colour, with a faint tinge of purple, clouded and spotted with deep brown, or purple red. They vary almost *ad infinitum*, more so, it is said, than those of any other land bird, so that it is almost impossible to describe the numerous variations. Some are dull bluish white, spotted with purple brown; others reddish white, entirely covered with specks of deep red; others reddish white, clouded with pale purple grey, and finely streaked and spotted with rust-coloured black; others

again pale purple red, minutely marked in a net-like manner with a darker red.

There are further varieties of a greenish or yellowish white ground colour, marked strongly with dark brown, or purple brown, having clear spots of the same or blots of pale bluish grey, dull lilac, or olive.

Two broods are not unfrequently reared during the season.



ROCK PIPIT.

LXXI

ROCK PIPIT

ROCK LARK—SEA LARK—FIELD LARK—DUSKY LARK—
SHORE LARK—SHORE PIPIT—SEA TITLING.

PLATE LXXI.

<i>Anthus obscurus</i> ,	.	.	.	NEWTON.
<i>Anthus campestris</i> ,	.	.	.	BEWICK.
<i>Anthus rupestris</i> ,	.	.	.	NILLSON.
<i>Anthus petrosus</i> ,	.	.	.	FLEMING. JENYNS.
<i>Alauda obscura</i> ,	.	.	.	GMELIN. PENNANT. MONTAGU.

THIS Pipit, which is a common resident on our coasts, breeds generally over the coasts of Northern Europe. Its nest is placed either in clumps of herbage, in holes or ledges in rocks, at a low elevation, or on the ground, sheltered by some little projection or eminence. It is made of fine dry grass and marine plants, but is very loosely compacted, the inside being either not at all, or more or less lined with hair, or finer materials of any kind that the bird can procure.

Booth, writing of this species, says: "On the Bass Rock I have known of as many as ten or a dozen nests at one time, and there were doubtless others I failed to detect. Many were placed among the fallen masonry in the old fortifications, and in parts of the buildings where stones had been dislodged from the walls. I stumbled upon one

or two among the accumulation of old rubbish in the passages in the ruins, which had been built in almost total darkness. They also resort to the cracks and ledges on the face of the rock, especially on the south side."

The eggs, which have very little polish on them, and vary much in appearance, are four or five, and occasionally six in number. They are of a pale yellowish grey ground colour, spotted with reddish brown, almost confluent at the larger end; some are wholly, or almost wholly brown, and some wholly greenish grey, with a streak surrounding the base.



SHORE LARK.
WHITE-WINGED LARK.
SHORT-TOED LARK.

SHORE LARK

PLATE LXXII.—FIGURE I.

Alauda alpestris, . . . JENYNS. GOULD. EYTON.
Otocorys alpestris, . . . GRAY. NEWTON.

THE Shore Lark is an irregular visitor to Great Britain. The nest, which is composed of fine grasses, circularly disposed, and lined with feathers, willow down, and reindeer hair, resembles in colour the moss in which it is embedded, and is placed on the ground, in the desolate regions where moss and stunted grasses are almost the only vegetation.

The eggs are four or five in number, pale greenish or greyish white, spotted with pale brown spots. They are laid from the middle of May to the middle of June.

The young, says M. Audubon, which are hatched about the middle of July, and fully fledged by the 1st of August, leave the nest before they are able to fly, and follow their parents over the moss, in which they drop, and endeavour to conceal themselves on the appearance of any danger. They run nimbly, and if observed and pursued, the same author further relates that they utter a soft "peep," open

their wings to aid them in their escape, and separating, make off with great celerity.

In the north of Europe two broods are often produced during the season, but in Siberia the summer is too short for it to do so.

WHITE-WINGED LARK

PLATE LXXII.—FIGURE II.

<i>Alauda sibirica</i> , ...	HARTING.
<i>Melocorypha sibirica</i> , ...	GMELIN.

THIS bird, which once occurred in England, is a native of Russia and Siberia. It has really no claim to be considered as British. Its nest, which is built towards the middle of May, is made of grass, and placed on the ground in the midst of the desolate *tundras*. The eggs, four or more in number, are described as of a pale greyish white colour, more or less mottled and blotted with dark olive brown.

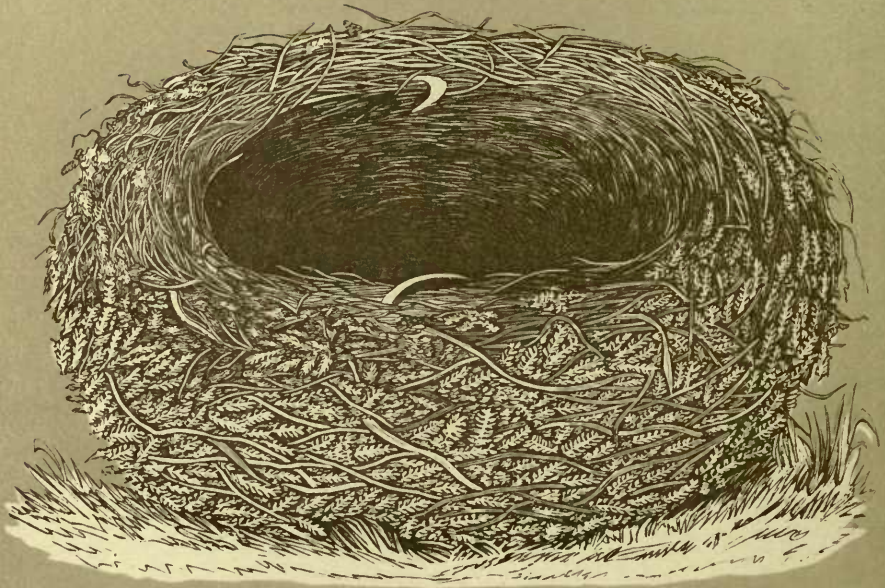
SHORT-TOED LARK

PLATE LXXII.—FIGURE III.

<i>Alauda brachydactyla</i> ,	.	.	.	.	.	GOULD.
<i>Calandrella brachydactyla</i> ,	.	.	.	.	.	NEWTON.

THIS species is also a rare straggler to the south coast, breeding in the south of Europe and North Africa, and extending its range as far east as India.

The nest is placed on the ground in any slight cavity, such as a hoof-mark. The eggs are four or five in number, of a dull white mottled with greyish brown, minutely dotted all over.



WOOD LARK.

LXXIII

WOOD LARK

PLATE LXXIII.

Alauda arborea, . PENNANT. MONTAGU. BEWICK.

THE nest is placed upon the ground, beneath some low bush or tuft of grass, or at the foot of a tree; occasionally under the shelter of a fence or paling, or on a bank. The outside materials are small roots, grass, and sometimes moss, and the lining smaller grasses, with occasionally a little hair.

The authors of the "Birds of Devon" write:—"We one day discovered a nest of a Wood Lark in an open ferny field, and did not take it. The next time we passed the spot we found that the birds had erected a dome of ferns very skilfully above the nest for extra concealment."

The eggs, which are laid at the end of March or beginning of April, and also in July—there seeming to be two broods in the year—are four or five in number, of a pale greenish-white or yellowish-brown ground colour, spotted and speckled with dull reddish-brown, or dark grey or brownish grey, with sometimes a few irregular dusky lines at the larger end.

SKY LARK

LAVROCK—FIELD LARK.

PLATE LXXIV.—FIGURE I.

Alauda arvensis, ... LINNÆUS.

THE nest, which is frequently commenced as early as April, is placed in a hollow in the ground, with or without the fortuitous shelter of a clod of earth or tuft of herbage. It is placed in various situations, and is made of grasses, and a few chance leaves, the coarser outside, the finer on the inner part. The male bird appears to bring the materials to the spot, where the female is engaged in arranging them. The young are hatched in about fourteen or fifteen days; they do not quit the nest until fairly fledged, but return to it to roost at night for some time after they have left it. Two broods are usually produced in the season.

The eggs, three, four, or five in number, vary much both in form and colour; some are of a greyish-white colour, with a tinge of purple or green, and freckled or mottled nearly all over with a darker shade of grey, greyish



SKY LARK.
CRESTED LARK.

LXXIV

brown, or brown; others are of a deep sombre hue, and in some the chief part of the colour is concentrated at the larger end, either wholly or only partially around it. They are usually placed with their smaller ends towards the centre of the nest.

CRESTED LARK

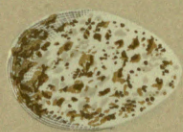
PLATE LXXIV.—FIGURE II.

Alauda cristata, ... GOULD.

THE Crested Lark is a rare or doubtful straggler, never breeding in Great Britain. It is common, though local, in Central and South Europe.

The nest, which is usually commenced in April, is built on the ground, frequently near houses, on cultivated land. It is made of dry grass, small roots, and straw, and is lined with a few hairs when they are obtainable.

The eggs are usually four or five in number, and vary very considerably, some being dark greyish white spotted with brown, and others with numerous markings of violet grey. Some resemble those of the Sky Lark, only they are more thickly marked, so that the ground colour becomes invisible.



BLACK-HEADED BUNTING.
SNOW BUNTING.
LAPLAND BUNTING.

BLACK-HEADED BUNTING

PLATE LXXV.—FIGURE I.

Emberiza melanocephala, . . . LINNÆUS

THIS bird, which has been once shot in England, is an Asiatic species, wintering in Northern India.

The nest, which is generally built in bushes or brambles or amongst trailing plants, is loosely constructed of dry grass and the smaller stalks of plants, and lined with finer materials, such as hair.

The eggs, generally four or five in number, vary greatly, and are pale greenish blue, speckled with light grey and dull olive, with a few blots of greyish blue.

SNOW BUNTING

SNOW FLAKE—SNOW FLECK—SNOW FOWL—TAWNY BUNTING
— BRAMBLING — GREATER BRAMBLING — GREAT PIED
MOUNTAIN FINCH—LESSER MOUNTAIN FINCH.

PLATE LXXV.—FIGURE II.

<i>Plectrophanes nivalis</i> ,	.	MEYER.	SELBY.
<i>Emberiza nivalis</i> ,	.	LINNÆUS.	GMELIN. LATHAM.

THE nest, which is made of dry grass, lined with hair and a few feathers, is generally fixed in the crevice of a rock, or among stones on the ground. Captain Lyons, R.N., found one placed in the bosom of a dead Esquimaux child. Others have been found under the shelter of the drift timber which is frequently to be met with on the shores of the frozen seas.

The Snow Bunting, common in the Arctic Circle, breeds occasionally in the Highlands and islands to the north of Scotland. The nest is often placed in crevices in rocks and boulders, and is often but a slight distance above the sea level.

Mr. Seebohm, who is more intimately acquainted with the breeding habits of birds in Siberia than any other living author, writes as follows:—"The Snow Bunting seeks the wildest districts and the roughest ground in which to rear its young. High up on the rocky fells, far beyond the pines

and above the birches and willows, among the loose stones and fallen crags, where the snow still lies in large patches, or away to the north on the wild tundra, not above but beyond the limit of forest-growth, surrounded by rivers and swamps and lakes and bogs, amongst the piles of drift-wood that strew the banks of the mighty rivers, or the half-rotten logs which lie above high-water mark on the shores of the Arctic Ocean, left there ages ago, when the sea-level was much higher than it is now, are the breeding-places of this bird."

The eggs, from four to six in number, are greenish or bluish white, encircled at the thicker end with irregular brown spots, and many blots of pale purple; they are rather round and obtuse in form. Meyer mentions one in the possession of Mr. Hancock, of Newcastle, marked all over with spots of a reddish and purple hue.

LAPLAND BUNTING

LAPLAND LARK BUNTING—LAPLAND FINCH.

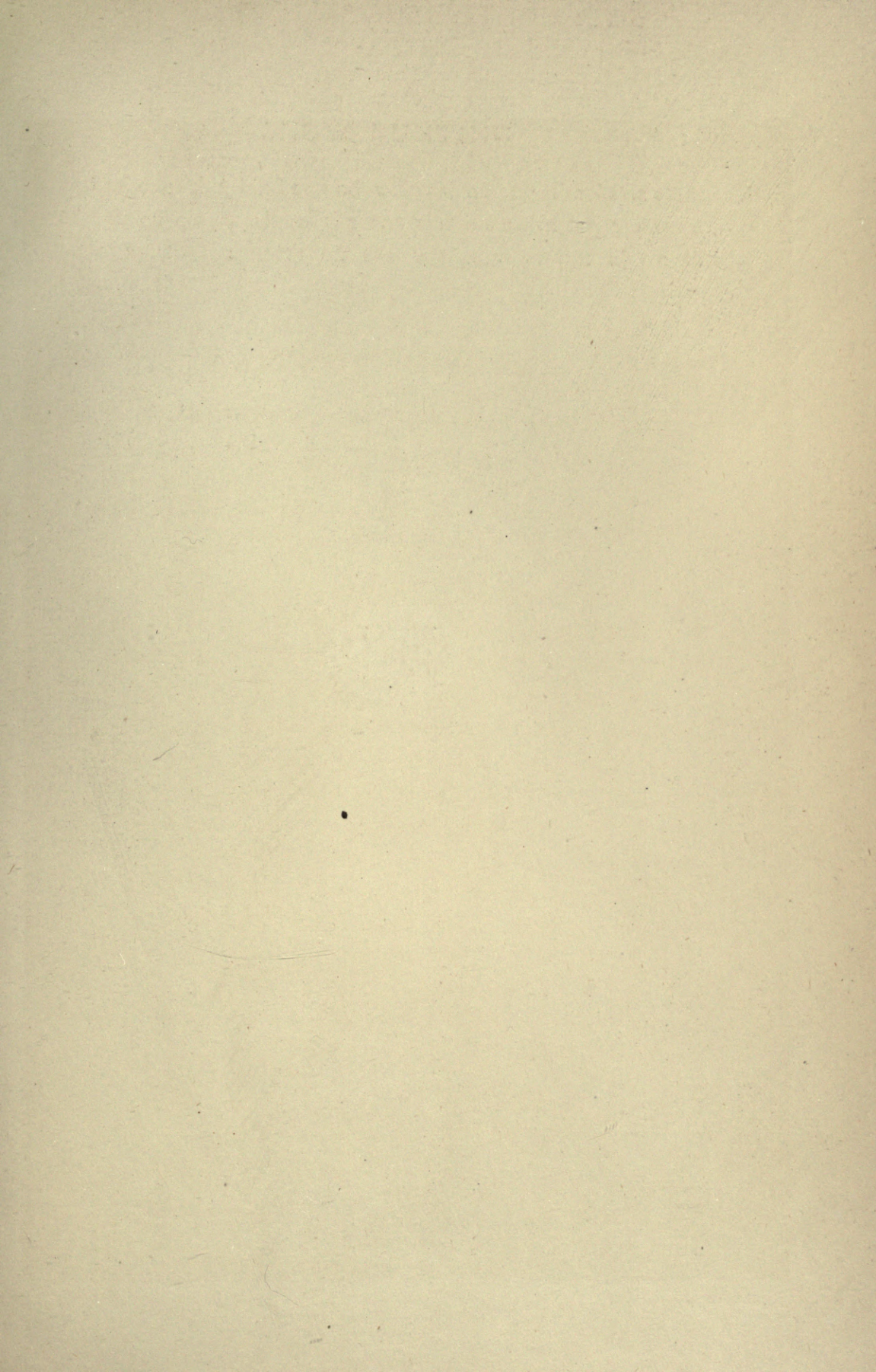
PLATE LXXV.—FIGURE III.

Plectrophanes lapponicus, . . . NEWTON. DRESSER.
Calcarius lapponicus, . . . JENYNS.

AN Arctic breeding species which has occurred but a few times in England, although it is the most common bird on the tundras of Siberia.

The nest is placed on some small hillock in low marshy situations, among moss and stones, and is built of stems of grass, neatly and compactly lined with feathers, which at once serves to distinguish it from the nests of other birds that frequent the same localities. Several pairs build near each other.

The eggs, usually four to six in number, are pale greyish or reddish brown, blotched with dark brown.





BUNTING.

LXXVI

BUNTING

COMMON BUNTING—CORN BUNTING—BUNTINGLARK.

PLATE LXXVI.

Emberiza miliaria, . PENNANT. MONTAGU. BEWICK.

THE Common or Corn Bunting is a late breeder, rarely laying before the end of May.

The nest, which is begun in April, is usually placed on the ground, or only slightly raised above it by coarse herbage, and frequently on a bank, sometimes in a bush, or under a hedge, among the grass, is composed of dry straws and grasses, lined with smaller grasses, and small fibrous roots, moss, and hair, rather neatly but not finely compacted. It is somewhat large and thick, but shallow inside.

The eggs, generally four, or rarely five or six in number, and of an obtuse oval shape, or of a whitish colour, with a slight tinge of grey or red, sometimes pale purple-red, streaked and spotted in a very irregular manner with dark purple-brown and pale greyish-purple.

Booth in his Rough Notes gives some very interesting details. "This species," he says, "appears to be late in nesting; I have repeatedly seen fresh eggs mown out in June when the hay was cut—the fields of seed-grass being the favourite breeding-quarters of this Bunting in Sussex: their nests

are also occasionally discovered under the shelter of coarse herbage on the furze-covered downs. I am not aware of any eggs that vary to a greater extent ; at times they differ but slightly from those of the Yellow-Hammer, while clutches may now and then be seen blotched and scrawled in every conceivable manner with a rich red-brown. Eggs taken in the east of Sussex, I remarked in several instances, both in shape and colouring, bore but a very slight resemblance to those procured to the west of Brighton."



REED BUNTING.

LXXVII

REED BUNTING

BLACK-HEADED BUNTING—REED SPARROW—CHINK—BLACK
BONNET.

PLATE LXXVII.

Emberiza schæniclus, ... LINNÆUS.

THE nest is commonly placed on the ground, among coarse grass, weeds, sedge, or rushes, on a bank near the edge of the water which the bird frequents, and occasionally in the lower part of some low bush or stump, a few inches above the ground; sometimes it is said to have been met with in a furze or gorse bush, at a considerable distance from water; and Mr. Hewitson relates that he has, though rarely, found it at an elevation of two feet or more above the water, and supported on a mass of fallen reeds. Mr. J. Barstow, of Garrow Hill, near York, found one in July, in a hedge about a yard from the ground, some way from any pond: it contained four eggs. It is composed of grasses and fragments of rushes, lined with the feathery tops of the reed, a little moss, or finer grass, or hair.

The eggs are four to six in number, are purple-grey colour, streaked and strongly spotted in a pleasing manner with a darker shade of purple-brown; sometimes the end is delicately marked with a texture of fine lines. They

are laid about the first week in May, and occasionally a second brood is produced in July. They are somewhat oblong, and taper a little at each end.

The name of Black-headed Bunting often given to this species is unfortunate, as that properly belongs to a different bird, *Emberiza melanocephala*, an inhabitant of South-eastern Europe, which has only occurred accidentally in Great Britain.



RUSTIC BUNTING.
LITTLE BUNTING.

LXXVII*

RUSTIC BUNTING

PLATE LXXVII.*—FIGURE I.

Emberiza rustica, ... PALLAS.

THREE specimens only of the Rustic Bunting have been captured in England.

The eggs are not described very definitely by various writers, but are believed to be of a warm reddish tinge, with blots of dull greyish, streaked and spotted with dull olive.

LITTLE BUNTING

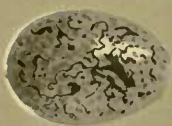
PLATE LXXVII.*—FIGURE II.

Emberiza pusilla, ... PALLAS.

THE Little Bunting, which breeds in North-eastern Europe, has only once been recorded in England.

The nest is placed on the ground in some rough spot, and is built of dead leaves, and stalks of grass, with moss, and lined with fine grass.

The eggs have been found five in number, and are described as of a pale grey ground colour, blotted and spotted with reddish brown and dark grey.



YELLOW-HAMMER

LXXVIII

YELLOW-HAMMER

YELLOW BUNTING—YELLOW YOWLEY—YELLOW YELDRING—
YELLOW YOLDRING—YELLOW YITE—YELDRICK—YOLK-
RING—YOIT—SKITE—GOLDIE.

PLATE LXXVIII.

Emberiza citrinella, ... LINNÆUS.

THE nest, which is rather bulky, is usually placed either on or very near to the ground, on a bank, or sheltered by some bush, among the twigs, or in a clump of grass, or tuft of other herbage. It is formed of moss, small roots, small sticks, and hair, tolerably well compacted together; the finer parts of the materials being of course inside. The late Mr. William Thompson, of Belfast, knew one in the middle of a field; he also relates that in the garden of a friend of his near that town, a pair of these birds built their nest at the edge of a gravel walk, and brought out four young, three of which being destroyed, the nest was moved with the fourth one for greater safety to a bank a few feet distant, and the old birds still kept to it, and completed the education of their last nestling. Mr. Blackwall mentions, in the first volume of the *Zoological Journal*, his having known an instance in which, in the month of June, the female laid her eggs upon the

bare ground, sat upon and hatched them ; and Mr. Salmon, of Thetford, mentions in the second volume of the *Naturalist*, old series, page 274, his having on one occasion, on the 29th of May 1834, found the nest at the height of seven feet from the ground in a broom tree. Mr. Hewitson, too, found one at a height of six feet from the ground in a spruce fir, and Mr. M. C. Cooke has informed me of one found, near Swanscombe, in a bush at a height of twelve feet.

The eggs, from four to five, and occasionally six in number, vary considerably, and are of a pale purple white colour, streaked and speckled with dark reddish or purplish brown ; the streaks frequently ending in spots of the same colour. Some are of a red colour, with reddish-brown hair-like streaks and lines, others entirely of a stone colour, marbled in the usual way. The young are seldom able to fly before the second week in June, being about a fortnight after they have been hatched ; they keep together at night for a short time before they finally separate. Two broods are occasionally reared in the year.



CIRL BUNTING
ORTOLAN.

LXXIX

CIRL BUNTING

FRENCH YELLOW-HAMMER—BLACK-THROATED YELLOW-HAMMER.

PLATE LXXIX.—FIGURE I.

Emberiza cirius, ... LINNÆUS.

THE Cirle Bunting is chiefly found in Sussex, being very locally distributed.

The nest is placed in furze or low bushes, and is usually made of dry stalks of grass and a little moss, lined with hair and small roots; some are wholly without moss or hair, and are composed entirely of the other materials, the small roots constituting the lining. The nest, which closely resembles that of the Yellow-Hammer, is common in the quickset hedges alongside the London and Brighton Railway.

The eggs are four or five in number, of a dull purplish white, distinctly streaked and speckled with dark brown: they vary in colour and markings, but as a rule closely resemble those of the last species. The young are hatched in about a fortnight.

ORTOLAN

ORTOLAN BUNTING.

PLATE LXXIX.—FIGURE II.

Emberiza hortulana, ... LINNÆUS.

THE Ortolan Bunting which is a rare visitant, although escaped birds from the poulterers are not unfrequently seen, never nests in England, but is common in France and Holland, where it builds in the latter part of May.

The nest is placed in corn fields, and adapted to some hollow in the ground, or the latter possibly to it; Selby adds thickets and low hedges as places of its nidification also. It is formed of dry grass and small roots, thickly lined with finer portions of the latter; in some the inside is finished with a few hairs.

The eggs are four or five, sometimes, though rarely, six in number; they vary much in markings, being described by Saunders as pale purplish grey, and by Seebohm as bluish white varying to pale salmon colour: they are spotted, streaked, or blotched with dark purple or black.

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